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Speech
ON
THE REPORT BY THE EDUCATION COMMITTEE PRESENTED TO THE GENERAL MEDICAL COUNCIL.

Delivered before the General Medical Council on Saturday, Nov. 26th, 1910,

BY SIR HENRY MORRIS, BART., M.A., M.B. LOND., F.R.C.S. ENG.

MR. PRESIDENT AND GENTLEMEN,—As the Resolution, which was remitted to the Education Committee on Nov. 26th, 1909, and to which the Report now presented to the Council is the answer, was moved by me, I desire without delay to make some remarks upon the Report so far as it refers to the subjects mentioned in that Resolution. The terms of the Resolution were the following:—

"That it be referred to the Education Committee to consider further the place in the student's career which the preliminary sciences should occupy; and that the committee be requested to frame and submit to the Council a pattern scheme of medical education whereby the required minimum of the several subjects to be included in the curriculum can be adequately studied and the requisite examinations thereon passed within the period prescribed by the curriculum."

In the first place, I wish to express my personal thanks to the committee for the time and trouble it has devoted to the consideration of the questions submitted to it, but at the same time I am compelled to say that in my opinion the Report[1] is distinctly disappointing. In effect, it confirms the *status quo ante*, and if approved and adopted by the Council the result will be to postpone any reformation of the present unsatisfactory state of the curriculum for a period of 10, 15, or maybe 20 years.

I. First, as regards the "pattern curriculum" asked for in the second portion of the Resolution of Nov. 26th, 1909. The reply of the committee is that it could not do as it was asked, and the only reason given for its inability to do so is the very remarkable one that only exceptional candidates could accomplish within the allotted time the study of the full number and amount of the subjects contained within the present curriculum. It was with the object that the committee should consider and report to the Council how this very condition of over-congestion of the curriculum might be obviated that the Resolution of Nov. 26th, 1909, was referred to it. There were two ways in which the congested curriculum could be relieved—namely, (1) either by lightening the curriculum, or (2) by extending the period. The Report does not deal with either alternative. It leaves things exactly as they were. It has made no attempt whatever to adapt the quantity of the contents to the containing space, and the only reason given for its not doing so is that the contents are greater than the space can contain. All that portion of the Report which deals with the statistics showing the length of the curriculum as actually pursued by students under the several licensing bodies, and with the comparison of the curricula of the several licensing authorities, is only indirectly, if at all, relevant to the question referred to the committee. The committee was not asked to draw up a pattern curriculum which would prove acceptable to the majority of the licensing bodies and which would remove the diversity of detail among the curricula. It was not asked even to draw up a pattern curriculum merely as such. What it was asked to do was to draw up a pattern curriculum whereby the required minimum of the subjects included could be adequately and successfully studied within the prescribed period by the average student. The members of the Council knew how improbable it is that any pattern scheme would be accepted by all the licensing bodies, or that diversity of detail among the curricula could be prevented. Diversity of detail in a possible curriculum would be no bad thing. What was the mischief was, that the present curriculum was impossible to the average student. That was the darkness into which the Council asked the committee to throw the light. But the result of the Report is that the students and their parents are left uninformed by the Council of the fact that a nominal five years' curriculum must in reality be one of six and a half or seven years; and the parent who launches his son as a medical student and expects to see him through on the expenditure of from £800 to £1000 has, by bitter experience, to realise that it is only after an additional year and a half or two years of time, and an additional £200 or £400 in cash, that the qualification which he and his son have in view can be attained.

II. Next, as regards "the place in the student's career which the preliminary sciences should occupy." This is the question contained in the first part of the Resolution of Nov. 26th, 1909. The reference was not as to the place in the curriculum, but as to the period of the student's career which the preliminary sciences should occupy—as to whether they should be studied within the period of the curriculum, or previously. The answer of the committee might have been simple and direct, to the effect that the precise period should remain, as in fact it is now, optional, but that if previous to registering, but after passing an examination in general education, the curriculum should be correspondingly shortened by 6 or 12 months. Or its reply might have been that the period should be before the commencement of the curriculum, and that the curriculum, unburdened of the preliminary sciences, should remain at five years. But it was neither the one nor the other. The reply of the committee implies an untruth—of course, quite unintentionally, but still an untruth—that the preliminary sciences must be studied in the five years and in medical schools or in scientific institutions. The wish was father to the thought, and the thought to the implication. The reasons given for this reply are two: (1) that to transfer the subjects from the curriculum and make them part of the course of school education would be to remove them from any effective control on the part of the medical authorities; and (2) that the indiscriminate delegation of these subjects to the school curriculum is a matter which is not ripe for the consideration of the Council. The answer to the first is, that if the preliminary science subjects were made part of the school course, the examination in them would be under the same kind and extent of influence as the subjects and standard of the examination in general education. The answer to the second was given by Huxley in 1889, as well as by the Association of Medical Teachers, and by the writers of an important document 20 years ago. Huxley's[2] statement was, "The student ought to have acquired, as part of his general education, such knowledge of physics, chemistry, and elementary biology as is now demanded of him." In that way Huxley thought the whole curriculum would be given, as he remarked it ought to be, *to special medical subjects*.

The answer given by the Medical Teachers' Association so long back even as 1869 may be seen in a very full "*Report of the Committee on Professional Education*" *of the General Medical Council*, which I fear is but little, if at all, known to the present members of the Council, although several resolutions in the same sense have at different times since that Report was issued been under consideration of the Council. The teachers said[3]: "Every possible latitude of choice, consistent with the supposition of *bonâ-fide* study, ought to be allowed as to modes and places of education; ..... and we are of opinion that no student ought to be forced to learn in any specific establishment anything which he can reasonably be supposed able to learn elsewhere. Thus, if a student prefers to learn botany or chemistry elsewhere than in a medical school he ought, in our opinion, to be free to do so." Elsewhere[4] they express the opinion that chemistry, physics, and botany should be on the same footing as English, Latin, and arithmetic, and that the student should not be called upon to produce evidence of having learnt these subjects in certain particular establishments. Sir James Paget, in his reply to the circular letter issued by the same committee, said: "I think it greatly to be desired that every possible inducement should be offered to students to acquire such

[1] See THE LANCET, Dec. 3rd, 1910, p. 1626.

[2] See Minutes of Evidence: "University of London Commission," 1889, Q. 1079, pp. 99–100.

[3] Appendix II., Part I., p. 6, of the "Report of the Committee on Professional Education," 1869, and signed on behalf of the Council of the Medical Teachers' Association by John Simon, President.

[4] Appendix II., Part II., p. 19

knowledge as they need of chemistry, botany, or other natural sciences *in their preliminary education*. The necessity of learning these in medical schools is a very serious hindrance to the more important and practical parts of medical and surgical study."[5] Other eminent teachers might be quoted to the same purpose.

The "document" I refer to above was presented in 1890, and contains the following words underscored with a black line: "*The Sciences as they are now taught for the purposes of the First Examination, whether in Medical Schools or elsewhere, are the proper elements of the preliminary scientific training which should precede the more special and advanced studies, not only of Medicine, but of other scientific professions, and are even gradually becoming recognised as an essential part of a liberal education.*"

Now these subjects, as long as they are retained in the curriculum, either ought to be exclusively studied in a medical school and taught by teachers in touch with the whole course of medical education, or their study elsewhere than at a medical school under specified conditions ought to be recognised. The question may be set aside of their being taught by men in general touch with the medical curriculum as a whole, because whether taught in a medical school or not they are taught by teachers who regard the study of these subjects as the first steps in a science education, and who very little consider their special bearing on other parts of the medical curriculum, whereas the study of organic chemistry in its bearing on physiology and pathology is provided for within the limits of the professional curriculum. But if the study of these subjects is not to be of necessity within a medical school, then on what code of justice is the study of them in a highly equipped secondary school to be excluded? Why are schools like Winchester, Epsom, Dulwich, Bedford, St. Paul's, University College School Frognal Hampstead, to be excluded, whilst polytechnic institutions, and municipal technical schools, and several others mentioned on p. 13 of the Students' Regulations of the General Medical Council are recognised?

Have any of the above-mentioned schools been inspected by the chairman of the Education Committee? Have any one of them been visited, I would like to ask, by one of the self-satisfied gentlemen who signed the "memorial" protesting against the relegation of the teaching of the preliminary science subjects to the school period, which was presented to the General Medical Council in May last—a memorial which was identical in sentiment and phraseology with memorials on the same subject and having the same unfounded objection to the teaching of the preliminary science subjects in secondary schools which were presented to this Council in 1901 and 1902?

The Report of the Education Committee includes two statistical tables (see pages 8 and 9) showing the number of students, with the proportion of successes and rejections, who presented themselves during the years 1908 and 1909 at the first professional examination of the Conjoint Board: (1) from secondary schools; and (2) from medical and science schools. The Report then goes on to say that these tables show that only a very few boys, and those apparently of exceptional ability, were prepared to undertake the first professional examination upon a school study. This was an incorrect and a misleading assumption for three reasons. In the first place, amongst the boys who pass the preliminary scientific (first professional examination) of the University of London as external students are a considerable number from secondary schools, many of who come for examination only in the advanced subjects to the Conjoint Board, and thus are not returned in the tables as entrants from secondary schools, though it had been from secondary schools that they presented themselves for examination at the University of London. In the second place, at least half of the Conjoint Board candidates are graduates or undergraduates of one or other of the Universities, and are therefore exempt from examination in the preliminary sciences at the Conjoint Board. In the third place, there are many who had done a part of their preliminary science studies at secondary schools and the rest in a medical school and are tabulated as having come from the latter. But in so far as the number of candidates from secondary schools, with highly equipped modern sides (as highly equipped as most medical schools, with excellent laboratories and highly qualified teachers) were fewer than might be expected, one cause was the misleading and inaccurate, "so-called," regulations, especially No. 12 on p. 14 of the Council's publication concerning "Registration of Medical Students." These regulations the Report leaves without reference, untouched and uncorrected.

Regulation 10 states that "every medical student shall be registered in the manner hereinafter prescribed by the General Medical Council." Though the word "shall" is used the General Medical Council has no power to enforce registration.

Regulation 11 says that "no medical student shall be registered until ..... he has produced evidence that he has commenced medical study at a University or School of Medicine, or at a Science Institution recognised by one of the Licensing Bodies and approved of the Council."

The Council has no more power to insist on its approval, as a condition of recognition of places of study of the preliminary sciences, than it has to insist upon student registration.

Regulation 12 asserts that "the commencement of the course of professional study" (which includes the preliminary sciences) "recognised by any of the licensing bodies shall not be reckoned as dating earlier than 15 days before the date of registration," whereas there is nothing to prevent the whole period of study of the preliminary sciences being taken and the examination in these subjects being passed before the date of registration or before entrance at a medical school and without having been to a so-called "scientific institution." These regulations are not only misleading and inaccurate—they are directly contrary to the facts. By them the Council is made to appear as usurping a power which belongs to the licensing bodies alone; and sometimes the Council is put into a very ridiculous position thereby.

Take an actual case: A boy, educated at Epsom College, passed first the London Matriculation and then the Preliminary Scientific (M.B.) examination in chemistry, physics, and zoology. After this he was registered, and entered a London hospital. At the end of four years he wanted to enter for the final examination of the Conjoint Board, but was refused on the ground that his year's work at Epsom counted as only half a year towards the five years' curriculum. He next tried to enter for the final examination of a licensing body which follows strictly the regulations of the General Medical Council—namely, the Apothecaries' Company, and was refused because he could not be signed up for a five years' course at a recognised medical school. As a last resource he applied to the University of London, and was admitted without demur. Having passed the examination and obtained his degree he inquired of the Registrar of the Council whether he could now register as a practitioner, although he had been registered as a student for four years only. Did Mr. Allen then refer him to these regulations of the Medical Council and say to him "No! You have not complied with our conditions of registration"? Why, of course not; on the contrary, Mr. Allen had to register the young gentleman and to admit that the Medical Council has not the power to refuse to register a person who had duly passed his final examination.[6]

As long as these regulations remain as instructions of the Medical Council injustice will be done (*a*) to the students, (*b*) to the parents, and (*c*) to those secondary schools which have spent thousands of pounds in building and equipping science laboratories.

(*a*) There is injustice to the students, because the tendency of the regulations is to take boys away from school discipline and control before it is really necessary to do so, and to bring them to a medical school where they are not under the guidance of masters and are beyond the "general education" atmosphere of school life. On this point I will quote from a letter written by the high master of St. Paul's School.[7] He says: "The intention of the Council was doubtless right. It meant to prevent the premature specialisation in medical work. But the effect has been precisely the opposite of that intended. Instead of inducing the student to prolong his 'general education,' it tempts him (by the unfounded fear of losing a year) to go to a medical school at the earliest possible moment."

(*b*) There is injustice to the parents, who are misled by the form of the statements issued by the General Medical

[5] Report of the Committee on Professional Education, 1869, p. 187.

[6] See a letter from Dr. Burton, THE LANCET, Oct. 8th, 1910, p. 1103.

[7] See letter from Dr. Hillard, THE LANCET, Oct. 8th, 1910, p. 1103.

Council into the idea that preliminary science study at school does not count towards the medical curriculum at all, and that the Council can enforce a full period of five years between registration as a student and registration as a practitioner. I know of one parent who sacrificed a valuable scholarship which his boy had obtained at his school in order to place him at a medical school earlier than he otherwise would have done, being unaware of the Council's inability to insist upon the observance of its own regulations.

(*c*) There is injustice done to the secondary schools which have a highly developed "modern side"[8] because the boys are induced to leave to go to a medical school at a time when it would be beneficial to them to remain a year longer at school, and when by doing so they would bring credit and distinction to their school. Moreover, other secondary schools would be stimulated to develop their "modern side" if these misleading and misguided obstacles were removed from their way by the Council.

For these several reasons I beg to move the following Resolution; and as the subject is one of immense importance to general practitioners and to other parents and guardians, who intend giving their sons and wards a medical education, I have asked Dr. Langley Browne, the senior of the Direct Representatives for England and Wales, to second it:—

That as the Education Committee in their report of Nov. 22nd, 1910, express views in favour of retaining the preliminary sciences (chemistry, physics, and biology) as subjects of the medical curriculum, it be referred to the committee to consider and report to the Council as to the best way of amending the regulations of the General Medical Council in regard to the registration of medical students with the objects (1) of making those regulations consistent with the report and with the powers of the Council; (2) of making clear the distinction between regulations which must be observed and recommendations made for the students' guidance; and (3) of the advisability of altering or deleting Regulation 12 on page 14 of the regulations printed under date June 1st, 1910.

A Clinical Lecture

ON

ULTRA-CHRONIC PULMONARY TUBERCULOSIS.

Delivered at the Hospital for Consumption and Diseases of the Chest, Brompton, on Dec. 14th, 1910,

BY H. BATTY SHAW, M.D. LOND., F.R.C.P. LOND.,

ASSISTANT PHYSICIAN TO THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON; PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL.

GENTLEMEN,—This subject has been chosen for two reasons. The first is, that though it is known that pulmonary tuberculosis may be a chronic disease, so far as general impressions indicate, it is not common knowledge that it may exist for so many years as to justify the term "ultra-chronic"; no doubt many members of the profession can give examples drawn from the records of their patients which may possibly equal, and even exceed, those brought forward in this lecture. Little effort, however, has been made to publish details in a series of cases of the longevity of patients who are afflicted with tuberculosis of the lungs. The reason for this is not far to seek, for until a few years ago the term used to describe pulmonary tuberculosis was "consumption" or "phthisis." This term was primarily a purely clinical one, and indicated that there was disease of the lungs which led to wasting of the body. With the discovery of the tubercle bacillus by Koch in 1882, a new and more pathological significance was given to the wasting produced by disease of the lungs. For some time an effort was made to put the new wine into old bottles, and the attempt produced considerable confusion, which unhappily still exists. Practitioners are to be found to-day who, in obedience to the older teaching, will tell the friends of a patient who is suffering from pleurisy or some other suggestively tuberculous affection of the lungs, that possibly the disease will some day turn into "consumption"—i.e., the patient may begin to "waste" and be ultimately carried off by the malady. We know much more now of the early manifestations of pulmonary tuberculosis, and recognise how the so-called primary pleurisy may be but the early stage of pulmonary tuberculosis. Our text-books, however, still teach the duration of "consumption," and a medical student believes that, as a rule, pulmonary tuberculosis and "consumption" are identical, and that the average duration of the latter—something between two and four years—also expresses the duration of the former. This is a mistake, but cannot be remedied until figures are forthcoming which at least will point to a much greater duration. Facts which are drawn from the out-patient letters of this hospital will show how great a need there is for a revision of the subject of the prognosis in pulmonary tuberculosis.

The second reason is, that owing to the admirable arrangements by which the records of the out-patients who have attended or who are attending this hospital are preserved and rendered accessible, it is possible to trace the condition of the lungs of patients who attending during my eight years of office have also years ago been under the care of some of my senior colleagues in the same department.

Owing to the now well-recognised fact that so much can be done by residence in a special hospital, and more still in a sanatorium for pulmonary tuberculosis, to instruct sufferers from this malady in the hygienic rules which are necessary for their own and their fellows' welfare, as many out-patients as possible who are not too advanced in disease are admitted for the special instruction and treatment. It is a common experience, however, to find that patients suffering from early pulmonary tuberculosis are prevented by circumstances or caprice from availing themselves of these advantages. They elect to remain as out-patients whilst their letters allow them to do so, and then are lost sight of for years or altogether. They may present themselves again, but unfortunately in so advanced a stage that they may no longer be recommended for admission. But some may be found to come back for treatment who have not advanced in their disease, and having ascertained this fact again disappear, maybe for years, to reappear with the same evidence of quiescence of the disease existing in their lungs. It is to this last group that attention is called in the present lecture.

The consideration of these cases will be found profitable in that it will show how extremely chronic this malady is in a certain proportion of cases, and it will also be of economic advantage, as it may lead to a less hasty decision to offer to all cases of pulmonary tuberculosis the costly advantage of special treatment. So long as these patients are instructed in methods by which they may avoid infecting their fellows they are quite able to discharge their duties in life, and apparently with little risk of advancing their disease by such action.

At the outset, it would seem advisable to come to some agreement upon what may be called ordinary clinical pulmonary tuberculosis; this will vary according to the experience of each physician and his point of view. Merely to set a reasonable limitation to the lecture, only those cases will be considered who have suffered from pulmonary tuberculosis for five, or more than five, years, the maximum limit reached by one of the list of patients being 39 years, and from this list it will be possible for each of you to set your own limits as to what may be called ultra-chronic pulmonary tuberculosis.

Another question arises as to what criteria should be adopted as proof of pulmonary tuberculosis. In the first place, it is desirable that actual tuberculosis should be established: following modern developments, only those cases will be referred to in which the expectoration has been found to contain tubercle bacilli. This organism was discovered by Robert Koch 28 years ago, but many of these cases have revealed what has later proved to be pulmonary tuberculosis, years before such tests as examination for tubercle bacilli in the sputum were applied to them. The earliest case in the list to be tested in this way is one originally under the care of Dr. Percy Kidd, who fixed the nature of the patient's malady by finding the organism in the expectoration in 1892. During the last four or five years each one of the patients whose reports are now submitted for examination has been proved to be tuberculous in this way. In some cases the only objective sign of pulmonary mischief

[8] I use the term "modern side" merely to indicate schools where practical teaching and laboratory work are carried on. I am aware of the fact that in some of these schools a certain amount of classical work is done by the boys in their forms even though their chief work is the study of sciences.

was the presence of these organisms in the sputum. The result is that out of a total of 9428 patients who presented themselves to me for treatment up to Dec. 10th of this year, 1532 have been found to expectorate tubercle bacilli. It is, of course, possible that more than this number are tuberculous. Rightly or wrongly, use has been made only of the cases of those patients who recently or years ago presented themselves for symptoms or signs maybe merely suggestive of tuberculosis, and who during the last four or five years, when sputum examination has been made a routine practice, have been found to yield expectoration charged with tubercle bacilli. No doubt the objection will be raised that it is not right to argue that such cases were tuberculous from the beginning; possibly they suffered from non-tuberculous bronchitis to begin with and tuberculosis was superadded at a later date, maybe as a result of sitting for hours in the waiting-room amongst patients who were tuberculous. Rightly or wrongly again, this objection has been put aside and a patient who years ago may have suffered from "pleurisy," "hæmoptysis," "pneumonia," "inflammation" or "congestion of the lungs" of some weeks' standing, or even of "fistula in ano," or may have had "chronic cough" or "bronchitis" and subsequently has been found to bring up sputum containing tubercle bacilli is considered to have had tuberculosis for at least as many years as such symptoms have existed. Further, patients who presented "signs" of pulmonary disease years ago, such as apical râles, basal dulness, and weak breath sounds (unilateral in most part), and who in the last four or five years have been shown to be tuberculous by bacteriological examination of the sputum, are also considered to have suffered from tuberculosis from the date at which such signs were discovered. To those who sympathise with such views this lecture may appear acceptable; to those who do not the considerations brought forward will appear fallacious. Experience shows, however, that despite the fact that a considerable number of physicians still hold that the above symptoms and signs may be non-tuberculous in their inception, more probably they were tuberculous; parents who have suffered for years from a simple "winter" cough or from bronchitis and emphysema will be shown to present family histories which indicate what havoc has been made of their children, who have died from tuberculosis of the lungs, meninges, &c., even when they have been suckled at the breast or have been fed on cow's milk which has always been boiled before use. In view of these facts, it is wiser, not only from the point of view of the immediate companions of such people but from the point of view of the public, to consider that the above signs or symptoms are indicative of present tuberculosis. It is believed that human beings may have tuberculous lesions which are shut off from the rest of the system; they carry the organism, but apparently beyond having a localised focus of disease they are not sufferers so far as symptoms are concerned; they constitute a form of "carriers of tubercle bacilli"; their expectoration, if they have any, may contain tubercle bacilli. It may also be advanced as possible that healthy people have tubercle bacilli deposited in some part of the respiratory tract, but without producing any lesion, constituting a more true form of "tubercle carrier." Such cases have been reported as occurring amongst physicians who work in institutions where many tuberculous patients congregate. The fear that such a possibility may weaken the interest aroused by a consideration of the duration of life of some of the patients presently to be considered may be set aside, to a very great extent, for in those cases actual cough, with the discharge of sputum, has been a feature of each case; not only have tubercle bacilli been found in the sputum of these cases, but signs are present which justify the belief that they are suffering from genuine tuberculosis of the lungs, and that it is not a question merely of accidental occurrence of tubercle bacilli in the sputum of people who are non-tuberculous. It may be said that no patient upon whom a necropsy has been performed in this hospital during the last 18 months, and in whose sputum tubercle bacilli had during life been demonstrated, has been found to be free from tuberculosis of the lungs.

ANALYSIS OF CASES.

Of the 1532 patients who have been discovered at the last visit to the hospital to show tubercle bacilli in the sputum, and to have present signs indicative of pulmonary disease 303 are found to have had the disease for five or more than five years. But in this number it must be admitted that there are included some whose tuberculosis for some years existed, so far as can be ascertained, only in some part of the body other than the lungs—e.g., they may have first of all suffered from tuberculous dactylitis, adenitis, or tuberculous hip disease. This lecture is based upon facts which form part of a project to show the duration of pulmonary tuberculosis under the influence of out-patient treatment only. The number of 303 cases includes some who have had the benefit of in-patient and sanatorium treatment. Excluding these latter and also those whose tuberculosis expressed itself first in some system other than the pulmonary one, 212 cases are left, and from this number of patients observations are presented which will show how chronic may be the course of pulmonary tuberculosis subjected to the very trifling help, so far as the direct treatment is concerned, afforded in out-patient practice. These patients have succeeded in many cases in maintaining families, and, as their occupations will show, under conditions which are the very reverse of those which would be chosen to help arrest the disease.

Opinions will differ as to which cases may be called ultra-chronic cases, but the figures of Table I. will allow of individual opinion being exercised.

TABLE I.—*Analysis of 212 Cases of Pulmonary Tuberculosis of a Duration of Five Years and Over, showing the Number of Cases for each Year up to 39 Years.*

Duration in years.	Number of cases.	Duration in years.	Number of cases.	Duration in years.	Number of cases.	Duration in years.	Number of cases.	Duration in years.	Number of cases.	Duration in years.	Number of cases.
5	25	10	18	15	11	20	9	25	5	30	2
6	23	11	12	16	5	21	2	26	1	31	1
7	22	12	7	17	5	22	2	27	2	34½	1
8	14	13	9	18	7	23	2	28	2	39	1
9	13	14	7	19	2	24	1	29	1		

Obviously no claim may be made in this lecture to originality as regards the established fact that pulmonary tuberculosis may be a very chronic malady, but the generality of us are obliged to be content with the observation that such chronicity is indicated by the term of two to four years or thereabouts which has been found by past workers to express the average duration of chronic cases of consumption. Table I., however, shows that something like one-seventh of all cases of pulmonary tuberculosis, using a more preferable term and one which is not at all synonymous with "consumption" or "phthisis," may live for more than five years, even as many as 39, without any more effective remedies than those used in the out-patient department of this hospital, each of which is but symptomatic in design. It is necessary to call attention to the fact that only in some cases do the figures expressing the duration of life indicate the period elapsing between the onset of the symptoms and death. In a large number of the cases life has lasted longer than the last time each patient appeared for relief at this hospital. In some cases this last appearance was eight years ago, and in others during this present month, but in all cases life had lasted at least as long as the years indicated in the column headed "duration of life." There is a considerable falling off of the figures indicating a survival of more than 15 years, and probably no one would object to call all those cases which have survived this limit examples of ultra-chronic pulmonary tuberculosis; there are 53 of these cases representing about one-thirtieth of the total number of 1532 cases. Locked up in this comparatively small number are all the secrets which underlie the cure of pulmonary tuberculosis, for it may reasonably be said that processes which can secure to the individual such a long survival of infection of the lungs by the tubercle bacillus are exactly the ones which medicine should endeavour to secure as therapeutic agents.

On looking through Table II. some interesting points will be observed. The patient who survived his first illness, which is now held to be a suggestion of pulmonary tuberculosis, viz., "pleurisy," was able to present himself this year at the hospital—i.e., about 34½ years from the date of the pleurisy; his occupation is that of a "packer." Another patient, who is a bookkeeper, survived "pleurisy" 30 years; and another patient, who was a needlewoman, survived the same malady for the same number of years. A salesman, whose first

TABLE II.—*Fifty-three Cases of Pulmonary Tuberculosis (Tubercle Bacilli having been found in the Expectoration) Surviving during Fifteen Years and more, as Determined by the History Provided by the Patient.*

Evidence of pulmonary tuberculosis at the beginning of the period cited in the third column.	Register number and occupation.	Duration in years of pulmonary tuberculosis when last seen.	Number of lobes involved when last examined.
Cough	11,917 Clerk.	15	5
	7,585 Photo-etcher.	15	5
	2,580 Coal-porter.	28	5
Pneumonia	11,354 Porter.	15	2
	11,348 Labourer in creosote work.	17	4
	10,144 Storekeeper.	20	2
	9,823 Lamplighter.	20	3
	8,632 Housewife.	24	2
Congestion of lungs	7,981 Billiard-table maker.	20	3
Inflammation of lungs	7,607 Cab-maker.	20	2
	4,993 Clerk.	31	4
Pleurisy	9,396 Storekeeper.	15	4
	8,807 Cigarette coverer.	15	4
	4,913 Housewife.	15	3
	4,869 ,,	15	4
	4,545 Compositor.	15	2
	1,449 Book-folder.	15	4
	9,735 Shop assistant.	16	2
	6,623 Housewife.	16	4
	6,130 Painter.	16	4
	9,848 Warehouseman.	17	2
	12,621 Labourer.	17	3
	10,326 Housewife.	18	5
	9,347 ,,	18	4
	2,282 ,,	18	5
	10,081 Hawker.	18	4
	8,488 Shop assistant.	19	4
	5,514 Machinist.	20	3
	4,708 Housewife.	20	5
	340 Photographer.	20	4
	12,043 Flesher in tanyard.	21	4
	5,637 'Bus conductor.	22	4
	8,603 Housekeeper.	23	5
	12,293 Housewife.	25	4
	12,259 Labourer.	26	5
	9,454 Reporter.	27	5
	11,457 Hawker.	27	5
	5,604 Cellarman.	28	4
	4,104 Housewife.	30	1
	8,433 Bookkeeper.	30	5
	11,523 Packer.	34½	5
Hæmoptysis	9,634 Painter.	16	4
	4,611 Telegraphist.	19	4
	11,866 Servant.	20	? 1
	4,348 Coal-weigher.	22	5
	579 Housewife.	25	5
	9,778 Needlewoman.	25	4
	272 Housewife.	39	3
Laryngitis and "first stage of consumption" ...	8,574 ,,	17	4
? Lung trouble ...	11,748 ,,	18	4
	10,981 Buyer.	25	3
Death of a daughter, aged 21 years, from tuberculosis; wife found to be healthy	1,631 Instrument-maker.	21	3
Fistula in ano... ...	10,566 Salesman.	15	4

departure from health was the development of a "fistula in ano," survived pulmonary tuberculosis for 15 years, and probably had this latter complaint at the time of development of the fistula. Quite the most remarkable of the whole list is the case of No. 272, a housewife. Her first visit was made to the hospital in the year 1891, at the age of 40 years, and she came under the care of Dr. Percy Kidd. She gave the history that during the previous 20 years she had had cough and also during the same period hæmoptysis. Expiration was prolonged at both apices, and there were dulness and crepitations over the middle lobe of the right lung. Tubercle bacilli were detected in the sputum in 1892. Similar signs were found by Dr. S H. Habershon in 1896, and they were more advanced in 1898. In 1903 the same signs were made out, but in addition there were friction sounds heard at the left base; tubercle bacilli were again present in the expectoration. The patient, now 61 years of age, was invited to come to this lecture for the purposes of demonstration, but wrote to say that she was unable to come as she was confined to her room with a severe cold; "until quite recently her health had been fairly satisfactory." Judging by the history she had had symptoms of pulmonary tuberculosis for at least 39 years, signs of the disease had been present 19 years, and tubercle bacilli were found in the expectoration 18 and 7 years ago.

The occupation of these patients shows that indoor employment does not necessarily preclude survival with the disease during a considerable number of years, because all but 8 of the 53 patients followed vocations within doors.

From the economic point of view this table is of value, for it shows that there need be less hesitation in allowing patients who have undergone special treatment in sanatoriums or hospitals to return to the work they have followed prior to admission, although such work entails spending their time indoors. It is possible, and indeed probable, that these patients effected considerable harm amongst those with whom they lived during so many years of unrecognised disease. One marked example was met with in No. 1631. This man had had a family of 13 children, of whom only three survived; five children had died from definite tuberculosis, including a daughter aged 21 years, who died from pulmonary tuberculosis. It is impossible to ascertain what the remaining five children died from, but quite probably tuberculosis was a factor. The presumption is that this man had infected the various members of his family who had succumbed to tuberculosis, as his wife was free from symptoms and signs of the disease.

To those of our profession who hesitate to accept that these 53 patients had suffered from pulmonary tuberculosis from the time in which they stated they first had pulmonary symptoms, the list will appear unsatisfactory. In order to satisfy them a table (No. III.) is now submitted of five patients who have survived pulmonary tuberculosis for 15 and more years, as shown by the signs figured on their out-patient papers by my predecessors who in former years had charge of them. During the last four or five years these patients have been shown to be tuberculous by the discovery of tubercle bacilli in the expectoration.

TABLE III.—*A List of Five Cases of Ultra-chronic Pulmonary Tuberculosis who have Survived 15 or more Years after the Discovery of Clinical Signs of the Disease, the Evidence of Tuberculous Signs being Documentary.*

Register number.	Occupation.	Year in which first signs were detected and observer.	Year in which corroborative signs were last noted and extent.	Duration in years of physical signs.
501	Housewife.	Râles at both apices (Dr. Percy Kidd), 1888.	1903; three lobes involved.	15
8931	,,	"Scattered sibili" (Dr. Percy Kidd), 1891.	1907; four lobes involved.	16
2648	Electric car conductor.	Left pleural effusion (Dr. Percy Kidd), 1890.	1908; two lobes involved.	18
4167	Tailoress.	"Hæmoptysis" and doubtful signs (Sir J. Kingston Fowler), 1881.	1905; one lobe involved.	24
10591	Ironmonger.	Dulness left base (Sir J. Kingston Fowler), 1885.	1910; four lobes involved.	25

This small series of five cases, with the possible exception of No. 4167, shows that tuberculosis of the lungs may reveal signs at the beginning and end of periods of 15 to 25 years. Each patient had pursued an indoor occupation, except No. 2648, who had probably been advised to take up the work of a 'bus conductor in order to get open air.

This lecture must be concluded with an expression of the hope that others will be found who will supply evidence of as great or greater chronicity in patients suffering from pulmonary tuberculosis. The more such evidence is accumulated the better it will be for the subject of the treatment of the malady, for it will give support to those who, whilst giving fullest credence to the benefits to be derived from sanatorium treatment, feel that after hygienic rules have been learnt, the patient may in suitable cases carry out the cure of the disease in his or her ordinary surroundings and whilst carrying out the duty of a wage-earner.

SOME OF THE MORE RARE CAUSES OF THE ACUTE ABDOMEN.[1]

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AT intervals we meet with cases presenting acute abdominal symptoms, which resemble rather closely some of those manifested by the more common examples of perforation of the hollow viscera, so that a diagnosis of one of these accidents may be wrongly arrived at. When the abdomen is opened, however, the lesion expected is not found, and we have to search for changes which may indicate that a more unusual and perhaps unsuspected disease is present.

Acute Hæmorrhagic Pancreatitis.

In this disease, which is most difficult to diagnose, the symptoms are referred to the upper abdomen, and, as they are very urgent and accompanied with much pain, early operation is generally permitted if suggested to the patient. Yet on opening the peritoneal cavity there may be nothing abnormal presented at first sight, whilst the blood-stained fluid usually present, being small in quantity, may be overlooked as a sign of disease. And in the early stage of this illness not only may the effusion of blood be of small quantity and possibly unnoticed, but there may be no fat necrosis, the only sign which can absolutely be relied on at the time. A good illustrative case was the following.

A widow, aged 57, was sent to me at St. Thomas's Hospital by Dr. G. Brebner Scott, of Brixton, for an acute abdominal illness on Feb. 23rd, 1909. At 6 P.M. on the previous day she had complained of great pain in the abdomen. She said that it began on the right side and spread rapidly to the left, and also extended upwards to the right lower ribs. Vomiting came on at once, and she could keep nothing down subsequently. Her bowels had acted naturally the previous morning. There was no history of biliary colic or of injury, and she had been quite well until this illness. She was a well-nourished woman, who still complained (at 6 P.M. on Feb. 23rd) of abdominal pain. This was now general, all over the abdomen. She looked ill, had a pulse of 110, and a temperature of 101° F. The abdomen was distended, generally hard to the touch, and very tender, but not specially so in the iliac fossa. On percussion there was patchy dulness, both in front and on the lateral aspects of the abdomen, but not in the flanks. No abnormal swelling could be felt, but the wall of the abdomen was fat. Her tongue was dry; the bowels were not acting. Operation was decided upon, and an incision made on the right side through the rectus muscle. When the peritoneum was opened a good deal of blood-stained fluid escaped. There was no lymph on the peritoneum, but the omentum appeared somewhat thick and infiltrated, whilst in two or three places there was fat necrosis. The pancreas appeared harder than usual and enlarged. The gall-bladder was normal; no stone could be felt either in it or in the biliary passages. The small intestine on the right side was distended. The peritoneum was washed out with normal saline solution and the incision was closed. The abdomen was closed because the amount of fluid did not appear to increase during the operation, and the peritoneum was quite clean. She was relieved by the operation, but on the following evening her temperature rose again to 100° and pulse to 136, so the incision was reopened, more fluid evacuated, and a drainage-tube put in. The following day Cammidge's test (*c*) was reported as positive. The patient was very ill for some days, and at one time appeared very flushed, weak, and despondent. Drainage was continued until March 10th, about a fortnight, after which she gradually improved. It is not necessary here to give any further details of the case. She left hospital on April 20th, and has since had good health, having quite recovered.

This case is encouraging inasmuch as it was a successful one; unfortunately, successes are not numerous in the practice of any one surgeon, however large his experience. There have been five cases under my care within recent years, all of which were submitted to operation, but this is the only one in which a full success can be claimed. But even when operation does not save life, it relieves of the agonising pain which is so very distressing in most. The history of alcoholism was not obtained in all. As a rule, the movements of the body were more free than they are after acute perforations of intestinal ulcers. In one case the patient (a female lunatic) was found to be lying on her side, and that position is not assumed in many acute abdominal conditions.

Fitz wrote of acute pancreatitis a few lines to which I may draw attention: "Acute pancreatitis is to be suspected when a previously healthy person or a sufferer from occasional indigestion is suddenly seized with violent pain in the epigastrium followed by vomiting and collapse, and in the course of 24 hours by a circumscribed epigastric swelling, tympanitic or resistant, with slight rise of temperature." I should say that the patient is commonly an adult of more than 40 years of age, well nourished, and even fat, apparently in good health until seized with a sudden attack of severe abdominal pain. Dr. C. R. Box has pointed out to me that the majority are females, and that this corresponds to some extent with the greater frequency of gall-stones in women.

On examination I have found that the abdomen has been more resistant generally than it should have been, but not rigid. There has been a diffused superficial tenderness, especially on unexpected light palpation; the general resonance over the abdomen has been rather patchy in character without evidence of free fluid, whilst the movements during respiration have been good. In all the pulse has been rapid, there has been anxiety, and not infrequently a flushed face, whilst there has been a rise of temperature. As Dr. A. Elliot reminds us in his interesting paper on this subject[2] (to which I am indebted), the cause of the rapidly fatal ending in acute hæmorrhagic pancreatitis is not always easy to determine. It has been put down to hæmorrhage, but many cases cannot be so explained, for in a considerable number the amount of extravasated blood has been comparatively small. Nor is it probable that the sudden disturbance of the whole or part of the pancreas is a sufficient explanation. Some have ascribed the fatal result to shock.

The other acute abdominal conditions which most clearly resemble it clinically are: (1) perforations of the stomach or duodenum; (2) perforations of the appendix; (3) acute intestinal obstruction; (4) acute cholecystitis with perforation of the gall-bladder; (5) acute irritant poisoning; and (6) very rare conditions, such as embolism of the mesenteric artery, rupture of a liver abscess or hydatid, &c. Of these it is most commonly put down to *perforation of the stomach*, but in the *anterior* perforation, although we have the sudden onset of intense pain, there is rigidity of the rectus muscles in the epigastric region, loss of liver dulness, with the rapid effusion of free fluid down the right side of the abdomen. When a *posterior* perforation of the stomach has occurred the symptoms are mostly referred to the lesser sac, so that they may be more difficult to differentiate. In gastric perforations the vomiting may, but does not usually, continue, and may indeed be absent, whilst there is a history of gastric symptoms pointing to chronic disease of the stomach or duodenum.

In *acute appendicitis*, although the pain is referred to the umbilicus at the beginning of the attack, within a short time there is tenderness in the iliac fossa and the pain moves to that part. The muscles become rigid over the iliac fossa,

[1] Abstract of a paper read before the Derby Medical Society on Nov. 8th, 1910.

[2] Transactions of the West London Medico-Chirurgical Society, October, 1910.

and localised dulness on percussion may be demonstrated, whilst if the appendix is placed unusually high on the right side, although the resemblance to acute hæmorrhagic pancreatitis is more close, there is still the differentiating rigidity and localised dulness.

In *acute intestinal obstruction* high up, possibly from a band, the pain is paroxysmal, vomiting very urgent, and the initial shock marked. Fæcal vomiting occurs early and obstruction is complete, no flatus being passed. Abdominal distension is but slight if any is present.

Gall-stone colic and cholecystitis are not infrequently diagnosed, more especially as there is so often the history of gall-stone colic in the past life. In the more acute cases of perforation of the gall-bladder a tender swelling may have been noticed in the gall-bladder region for some time—perhaps for days—before the onset of urgent symptoms.

Cases of *poisoning* rarely lead to any real difficulty. In acute metallic poisoning the purging is a prominent feature, and the discovery of the poison in the vomit places the diagnosis beyond doubt. In ordinary food poisoning there is usually more than one patient affected; diarrhœa is present as well as the vomiting, and cramp-like pains are a frequent accompaniment.

In acute hæmorrhagic pancreatitis if the abdomen is opened within 24 hours the amount of blood-stained fluid will be small, and may be supposed to have run from the external wound into the peritoneum; again, at this stage, it may be difficult to find any of the yellow points of fat necrosis. In any case in the adult where nothing is found in the more usual places to account for acute abdominal symptoms, search should be made for these areas, which are of small size, somewhat irregular outline, and yellowish-white in colour. I have been struck with the sodden state of the great omentum in some early cases, even when there have been very few points of fat necrosis visible. It has been of a greyish appearance, and has lost elasticity. There may be no evident swelling of the pancreas. If nothing is found which explains the sudden acute attack, it will be best to put in a drainage-tube for a few hours—for I can but think that some of the cases of abdominal section which have been closed "because nothing was found," have been of this nature, and without free drainage for a time the result of interference in most of them is worse than useless. A discharge which at first is of a reddish colour and varying amount will generally come away through the tube; this becomes of a yellow tint, and possesses a peculiar mawkish smell, and must not be permitted to accumulate within the peritoneal cavity, however small in quantity it may be. These patients are rarely good subjects for abdominal section, and I believe better results will be got on the average from simple drainage than from a more elaborate operation, such as incision of the pancreas, &c., possibly with drainage of the gall-bladder. Most of them will not stand the additional manipulations required, with the prolongation of the period of anæsthesia; it is possible, however, to do more if the patient is seen early in the attack, is in fair condition, and not too fat. The ideal operation is to incise the pancreas, with due regard to the duct and main vessels, and establish a direct route for the drainage preventing the escape of fluid into the surrounding peritoneal cavity, as in cases of rupture of the organ. Unfortunately the action of the secretion from the gland, if much escapes, is very destructive on the tissues with which it comes in contact, and if the flow is profuse you will find it difficult, or even impossible, to prevent actual digestion of parts.

Acute Dilatation of the Stomach.

This is a rare condition, the origin of which is sometimes doubtful; it may follow an operation involving the peritoneum. An attack starts with copious fluid vomiting, epigastric pain and distension, which becomes diffused; the action of the bowels is irregular; signs of extreme collapse are present. Towards the end of a severe case complete atony of the stomach may lead to cessation of the vomiting. Of physical signs, the most valuable, when it is present, is succussion, but it is important to remember the possibility of the occurrence of such a condition in the acute abdomen. Unless relieved by evacuation of the stomach contents it usually proves rapidly fatal. The extreme distension of the abdomen and generally severe condition may lead to a diagnosis of acute peritonitis, or if there is constipation intestinal obstruction may be thought to be present. I will give two contrasting examples, one occurring in the course of an acute pulmonary attack, the other secondary to an abdominal operation and associated with general intestinal distension.

(I.) On Jan. 21st, 1903, I was asked to see, with Dr. Michael J. Bulger, a patient aged 15 years. The history of the case was as follows. Dr. Bulger was called to see her on the 19th, when she complained of pain under the left breast on breathing, which was increased by taking a deep breath; there was slight expectoration tinged with blood. Over the painful area there was some dulness, increased vocal resonance, and crepitation on respiration. On the 20th the patient was much easier. Temperature, 102° F.; pulse, 96; could take food easily, bowels acting. She was the subject of angular curvature of the dorsal spine, the result of old tuberculous disease. On the 21st she began to vomit at about 7 A.M., the vomited material being of a bilious character and yellow in colour. The bowels acted at 8 A.M. The pain in the side was much better, but the constant vomiting masked all other symptoms. Temperature, 99°; pulse, 80. Nothing relieved the sickness. The abdomen was retracted, dull all over, and without tenderness on pressure. At 6 P.M. she was rather collapsed, the vomiting continued, and now she was bringing up a black, tenacious fluid. She had complained of no pain since the vomiting came on, but the abdomen was becoming distended. About 11.30 P.M., when I saw her with Dr. Bulger, the abdomen was somewhat distended, but not markedly so, dull on percussion all over the front and down the left flank to Poupart's ligament. No dulness was present in the right flank. A well-marked thrill of fluid could be felt in the lower part and to the left. There was no rigidity. The pulse was rapid, face pale and sunken, tongue black and dry, whilst there was frequent vomiting of a black, tarry fluid. An incision in the middle line showed a greatly distended stomach, the lower margin of which passed down to the pubes; it was bluish in appearance and flattened. All the intestines were empty. There was no free fluid. Distension apparently ceased at the third part of the duodenum, and no pressure could empty the contents of the stomach along this part. A tube was put in, and the opening sutured to the abdominal wall. Much fluid was drained off from the stomach by this tube, and vomiting ceased; but very little relief was afforded, and the patient died on the following day, apparently from exhaustion.

(II.) This is the other example. A woman, aged 27 years, came under my care at St. Thomas's Hospital, sent to me by the late Dr. Heath of St. Leonards-on-Sea, on Nov. 7th, 1901, for a swelling in the abdomen, which had been noticed nine years, and was said to be increasing. On the 12th cœliotomy was performed, the diagnosis of ovarian cyst confirmed, and the tumour removed in the usual manner. On the first and second days after the operation the patient's pulse was about 110, and the temperature rose from 101° to 103° F. The abdomen became increasingly distended; there was no vomiting beyond that directly following the anæsthetic. A week after the operation there was evidence of slight suppuration in the abdominal wound, and pus was evacuated with a director. There continued to be great distension of the abdomen and much discomfort. On the 21st Dr. C. R. Box saw the case with me. The epigastric area was then very prominent and a ringing coin sound could be obtained over this area and extending downwards to the iliac crests; marked succussion was elicited on shaking the patient; there was no vomiting. Lavage of the stomach was commenced and carried out twice daily from this time. 26 days from the operation parotitis developed, associated with a septicæmic temperature and severe diarrhœa, and for some time this was uncontrollable. Anti-streptococcic serum was given; a marked rash followed two days after its administration, but it was without apparent effect on the disease. The distension of the abdomen did not appreciably diminish, and with a high temperature and the diarrhœa it continued for about three months; much œdema of both legs and the lower part of the abdominal wall supervened. Some peristalsis in the region of the umbilicus was occasionally seen, and the stomach still showed the physical signs of dilatation. On August 12th, 1902, the patient left the hospital. The gastro-intestinal functions had become normal, but the œdema in the lower part of the body, due (presumably) to thrombosis of the inferior vena cava, was still present. Seen again in January, 1903, her general health was good, though evidence of thrombosis persisted, there being some œdema of the ankles, with dilatation of the veins over the lower part of the abdomen.

The subsequent history of the second case is very interesting. The patient was readmitted to St. Thomas's Hospital under my care on Nov. 19th, 1907, for another abdominal swelling. It was stated that her general health had been good until a fortnight before, but that during that time she had suffered from pain in the stomach and swelling, but no vomiting. The abdomen was a good deal distended and tense on admission, the superficial veins dilated, chiefly in the lower part, and there were numerous lineæ albicantes in the same region. A dull rounded area was present reaching almost to the umbilicus from the pelvis. This was fluctuating and tender, whilst around it the intestines were distended and tympanitic. Her temperature was slightly raised. She was kept in bed for some time in order to give the inflammatory state a chance of quieting down, but the distension did not appreciably diminish. On Dec. 4th an incision to the left of the mid-line was made, and an inflamed ovarian cyst was removed. The pedicle was long and had been twisted three times from left to right, this rotation probably resulting from the movements of the over-distended pelvic colon. The cyst was very adherent to the omentum, but not suppurating. It was an ordinary multilocular cyst. The gut was very much distended, the sigmoid being about 5 inches in diameter when examined in the wound. The intestine was not punctured, as the condition was regarded as temporary in character. Much flatulent distension of the abdomen continued, not involving the stomach; many remedies were tried, but until the employment of the interrupted current late in December no definite effect appeared to have been produced by them, but the distension suddenly subsided on the 25th of that month. There was no suppuration or rise of temperature after the operation. The unusual amount of distension of the intestines present at the time of the second admission and the difficulty in getting rid of it after operation are especially interesting in a patient with this history. On this occasion there was no suppuration either before or after the operation, yet the distension was extreme, and suggested that the nervous element was an important factor in its causation. The rapid recovery on the use of the interrupted current confirms this view. We know how marked the "reflex" effect may be sometimes of an injury to the abdomen unattended with obvious lesion, also the great distension of the abdomen which may ensue on the mere application of a ligature to the neck of a hernial sac in the operation for radical cure. In a patient once under my care a condition of rapid distension of the abdomen with pain, vomiting, and a temperature of 103·6° F. ensued, with a collapse which excited alarm. Appropriate remedies soon produced a change for the better and the case ran the usual aseptic course without further symptoms.

The cases narrated above are both of them examples of acute dilatation of the stomach but present many points of contrast. In the first case the stomach had become a mere fluid-containing sac with a thin wall, which at the time of the operation was lying over the front of the intestines and gave a dull note on percussion across the middle line, an area which is resonant in all other conditions of the acute abdomen. There was most certainly no gaseous accumulation, and until quite the last stage there was no distension of the abdomen. It is difficult to account for the distension unless we accept that it was a paralysis due to some toxic condition associated with the patch of inflammation of the left lung found by Dr. Bulger when he first saw the patient. Spinal deformity has been noticed in other cases of acute dilatation, but when not associated with the application of a plaster jacket it is difficult to understand how it could have much influence on the production of such an acute and fatal affection.

Dr. W. B. Laffer collected a series of 217 reported cases, and of these 38·2 per cent followed operations, usually one on the abdomen. The earlier notes of Case 2 were published by Dr. Box and myself in THE LANCET on account of its rarity, and as an encouragement in the treatment of such desperate conditions. We are inclined to put its occurrence down to some toxic absorption from the wound, although the amount of suppuration was neither acute nor extensive. It is probable that she owed her recovery to the fact that the distension was general and not absolutely confined to the stomach and duodenum. Dr. Laffer, from an analysis of his series of cases, writes: "The pathology and *modus operandi* of acute dilatation of the stomach and gastro-mesenteric ileus is not definitely known, but the experimental, clinical, and pathological evidence points to a primary innervation disturbance affecting the gastric nerves or their centres in the brain or cord. It has not been proved that the compression of the duodenum by the root of the mesentery is the primary cause of the so-called arterio-mesenteric ileus." Thus agreeing with Dr. Box and Mr. C. S. Wallace in their opinion.[3]

Some Neuroses which may Cause Symptoms of Urgency.

Hæmorrhage from the stomach.—No surgeon has any doubt that operative treatment is sometimes absolutely necessary in hæmorrhage from gastric or duodenal ulcers. It may be the only means of saving life, but the indications for its performance should be clear and definite. In some cases it may be possible to find and deal with the exact cause of the hæmorrhage; in others it will only be possible to treat the distension of the stomach (by gastro-enterostomy) on which the occurrence of the bleeding so frequently depends. It may be the wiser plan, when possible, to perform the operation of gastro-enterostomy, although the local trouble has also been directly treated.

In dealing with these cases it may be advisable to remember the possibility of the hæmatemesis being of hysterical origin, for such a condition is always amenable to medical treatment, and in my opinion should not be submitted to operation under any circumstances. The history of the case here given not only supports this statement but shows in a marked degree the ills that may follow ill-advised interference.

A woman, aged 29 years, was sent to me by Mr. Frank Boxall of Rudgwick in September, 1902, for varicose veins of the left leg which were causing her pain when standing. She was admitted to St. Thomas's Hospital (Mr. T. Guthrie was house surgeon), and Trendelenburg's operation with excision of some of the more prominent veins in the calf was performed. In her past history it was stated that she had been in another hospital a short time before for symptoms which were regarded as indicating the presence of a gastric ulcer. One night she developed acute symptoms, which were supposed to have been due to perforation of the ulcer, and an exploratory incision was made in the epigastric region by a surgeon, who found nothing but a normal state of the stomach; there had been no perforation. From the history this attack was supposed to have been hysterical. During her stay in hospital this opinion was confirmed by the fact that in the earlier days after her admission, when she was looking somewhat anxious in the face, she again gave an exhibition of perforation. She complained of acute pain in the epigastrium, the upper abdomen became suddenly distended, and the muscles appeared tense. There was, however, no change in her appearance, the pulse-rate, or temperature, and other symptoms were not in agreement with perforation; we had also the history to go upon, and the condition quickly improved when no special treatment was given. This patient left St. Thomas's about a fortnight after the operation for the veins, but returned in 1904 on account of hæmatemesis. She was vomiting daily, without any relationship to food, large quantities of fluid, in which there was a good deal of blood of dark colour, evenly diffused. In spite of the fact that this continued for a month without cessation, she showed no signs of anæmia, and always presented a smiling face to the world. No particular drug was given to arrest the bleeding, which was regarded as of hysterical origin. When the hæmatemesis had ceased for a few days and she had become bright and cheerful she was sent home. In about three months' time she was sent back to the hospital with another attack of hæmatemesis of similar character, from which she recovered in from three to four weeks, and returned to her home quite well. It was some months before anything further was heard of her, and then it appeared that she had again developed hæmatemesis when the influence of the hospital had passed off, and this time her friends sent her to a hospital "where there was a surgeon who would operate." Her next admission to St. Thomas's was on July 19th, 1905, when she was found to have a fæcal fistula, which communicated with the transverse colon and was situated at the lower part of a scar, through which, it was stated, her

[3] THE LANCET, vol. ii., 1901, p. 1259.

stomach had been operated on. We were informed by letter that although no ulcer or cause for the hæmorrhage was found at the examination, it was "thought" by the surgeon that there was an ulcer in the duodenum. She said that after the operation she did very well until the tenth day, when it was found that the milk which she was taking came through into her dressings. A second operation was done and the milk no longer came through the wound, but in ten days' time fæcal matter appeared when she took medicine, and fæcal fluid came through if she had an enema administered. The abdomen was opened in the middle line below the old scar and a lateral anastomosis of the large bowel above and below the fistula done. There were many adhesions. Recovery from this operation was quite uneventful, the fistula was allowed to close and, when she left the hospital, it was of about the size of a wooden match. She left at her own request. Readmission was sought in January, 1906, because she said that the escape of gas from the fistula was troublesome and caused offence to patients when she was nursing them. There was now a fistula of about the size of a cedar pencil, and as the bowels were acting well there appeared no reason why this should not be permitted to close. Accordingly a dressing was placed over it, and secured in position by means of broad strips of rubber strapping. The fistula closed to some extent, but we could not feel sure that it was not kept open in some way by mechanical means at the command of the patient. A smaller dressing was then applied, and this was covered and held in position by means of collodion. After this was applied she complained of excruciating pain and said that she could not possibly bear the agony of it. It was not, however, removed for a week, when the fistula had completely closed. I may perhaps mention that the fistula was found to have become distinctly larger after she had had a bath without the presence of a nurse; this was before the collodion was applied.

We were for a time under the impression that the case was now completed, but in March, 1909, the patient again came into the hospital during the cleaning of a charitable institution to which she had gained admission. A fæcal fistula had formed at the site of the former one, and she refused to have anything done with a view to closing it. When questioned as to the formation of this fistula she said that an abscess had come and had burst, leaving the fistula behind it, but there is a strong possibility that it did not form in this manner. If it had been closed, and this would soon have occurred under simple treatment, for there was a free normal passage for the fæces, she would no longer have been eligible for the institution in which she had now been received. I may add that her expression was that of a neurotic, and the diagnosis of hysteria was confirmed in many ways.

It was surely unnecessary to perform a gastrotomy for the relief of hæmatemesis in a case with this history. Gardini[4] has given the account of a case of similar origin. A girl, aged 22 years, had suffered from gastric symptoms for six years, and almost daily vomiting of blood for five months or more; in that instance the mucous membrane of the stomach is said to have been tinged, hypertrophic, and of a red colour, but there was no evident cause for the hæmorrhage. The patient was apparently cured by the operation. Gastric hæmorrhage has sometimes a purely nervous origin; sometimes it is simply a form of vicarious menstruation and has a relationship to the menstrual periods, as well as to emotional and constitutional disturbances and injury.[5]

Those of us who are engaged in doing much operative work must recognise what is almost a disease amongst a certain class of patients, chiefly those with abdominal symptoms—the desire for operations. It is not very unusual to see many scars on the abdomen and yet a continuance of symptoms.

Enterospasm.—By this term is now recognised a condition in which there is a spastic contraction of the muscular wall of some part of the intestines; there is no obvious structural change in the bowel, and the phenomena are usually regarded as being dependent upon some abnormal action of the nervous mechanism. The spasm may give rise to symptoms of varying intensity, from those of chronic constipation to such as simulate acute intestinal obstruction. Dr. H. P. Hawkins drew attention to the condition in 1906,[6] and I will quote from some of the conclusions he then set down. "Symptoms usually manifest themselves in patients during the active period of life; they appear with about equal frequency in the two sexes. The individuals affected are usually of a neurotic type and often of sedentary habits." Opportunity for direct observation of the spasm of the bowel does not often occur, but Dr. Hawkins thinks that the colon is more often affected than the small intestine. The pain in the subacute cases is sometimes localised in the right iliac region, and so appendicitis may be simulated.

I need here only consider the severe cases giving rise to symptoms which suggest the necessity of immediate operative interference. Sometimes the resemblance of the condition to intestinal obstruction of organic origin, or even to general peritonitis, may be so close that the mind of the observer is left in doubt as to the right diagnosis, and exploration of the abdomen will be the only sound course to pursue. Points which will be helpful in arriving at a decision are the presence of the trouble in highly strung, nervous individuals, and a history of previous attacks of abdominal pain similar in character and which have passed off without operation.

In a recent case operated on for me by the resident assistant surgeon, Mr. L. E. C. Norbury, the patient was a woman aged 40 years, for whom I had removed gall-stones about two years previously. Her symptoms were those of acute intestinal obstruction, and the spasmodic contraction affected much of the small intestine. She is a typical neurotic in appearance. I have met with the condition as a mere localised affection of the splenic flexure in more than one instance; here the patients have been overworked and anxious men of over 45 years of age.

Harley-street, W.

[4] Clinica Moderna, May, 1905; Brit. Med. Jour. Epitome, August, 1906.

[5] Loc. cit.

[6] Brit. Med. Jour., Jan. 13th, 1906.

A CASE OF

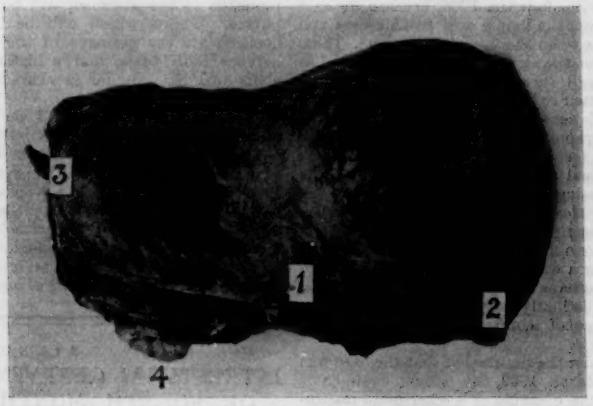
INTERSTITIAL GESTATION AT THE THIRD OR FOURTH MONTH WHERE THE SAC WAS REMOVED UNRUPTURED WITH THE BODY OF THE UTERUS BY ABDOMINAL HYSTERECTOMY.

BY ARTHUR H. N. LEWERS, M.D. LOND., F.R.C.P. LOND.,
SENIOR OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL.

THE patient, a married woman, 29 years of age, was admitted into the London Hospital on July 17th, 1910. She had been married for three years, and had had one child 11 months previously and one miscarriage three months after marriage. She had suckled the baby up to a fortnight before her admission. Soon after the confinement there was an interval of amenorrhœa lasting six weeks, but after that the periods came on and continued to occur regularly (although she was suckling) up to the middle of April, 1910. Since that date she had "seen nothing." Ten days before admission to hospital she had noticed a lump in the lower abdomen on the left side. Three days before admission she was seized during the night with sudden attacks of severe pain in the region of the lump. When she was brought up to the hospital she was evidently acutely ill, but as the cause of her illness was uncertain till a careful history had been obtained she was admitted in the first instance on the surgical side. When the circumstances were more fully investigated the case was thought to be probably obstetric, and it was therefore transferred to the obstetric wards in the early morning of July 18th, where I saw her at about 2 A.M. The pulse was then 120 and the temperature 97·5° F. She was suffering from very acute pain in the lower abdomen, but she was not anæmic, nor was there any vaginal bleeding. The mass in the left iliac region was felt, but could not be very thoroughly examined as there was great tenderness, and the muscles were rigid. On vaginal examination the cervix was soft, and the mass to the left appeared to be closely connected with the uterus (which was enlarged) and perhaps part of it. The history of

three months' amenorrhœa and the condition of the cervix with some enlargement of the uterus made it very probable that she was pregnant; while the absence of any vaginal bleeding, and the character of the pain, with such marked tenderness, were against regarding the condition as one of miscarriage. I thought probably the condition was one of ectopic pregnancy, although the fact that the patient was not anæmic showed there could not have been any serious internal hæmorrhage. It appeared to me that an exploratory laparotomy was the best course, and accordingly I at once proceeded to operate. On opening the abdomen just a little free blood was seen. The body of the uterus was enlarged, and to the left of it, and separated only by a shallow groove, was a rounded swelling larger than the body of the uterus itself, about the size of two fists. The left Fallopian tube, which was normal, could be traced up to this, and the condition was then recognised as one of interstitial gestation. Supra-vaginal hysterectomy was then performed in the usual way, the body of the uterus being removed together with the unruptured gestation sac. The various steps of the operation were a good deal hindered by the fact that the intestines were much distended. Both sets of uterine appendages appeared to be normal and were not removed. The patient suffered a good deal from shock during the first 24 hours after the operation. She then rallied well and made an uninterrupted recovery.

FIG. 1.



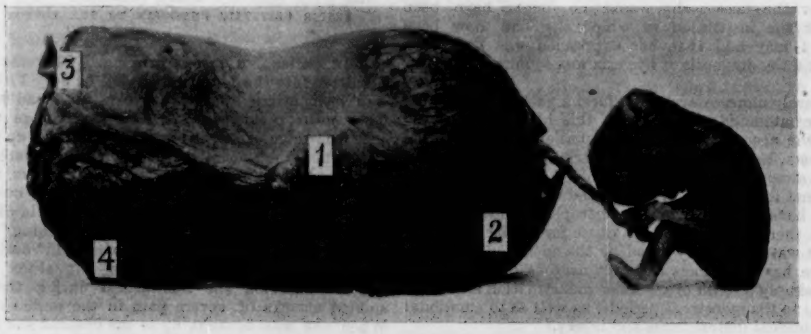
Anterior aspect. A large ectopic sac is seen at the left cornu. The hypertrophied round ligament (1) is inserted directly on to the sac. To the outer side at (2) is seen the stump of the left tube and the ovarian vessels. (3) The normal right round ligament. (4) Decidual lining projecting through internal os at the level of amputation.

Description of the parts removed.—The specimen consists of the body of the uterus and an adjacent pregnant sac, and has the appearance of a bilobed tumour. The two lobes are of unequal size, and are separated from one another by a shallow groove. The smaller of the two lobes is the enlarged empty body of the uterus, lying below and to the right; the larger, lying above and to the left, is the ectopic sac. From the cavity of the uterus at the level of amputation projects a rich decidual lining (marked 4 in the photograph). The ectopic sac is globular, and is 4 inches in diameter. Over the whole of its peritoneal surface large veins are seen ramifying, especially in the neighbourhood of the left tubal stump, and close to the contiguous left border of the uterus. At the lower and inner pole of the gestation sac, and a little external to the above-mentioned groove, is seen the thick hypertrophied left round ligament (1) inserted directly into the sac, and in marked contrast to the small round ligament on the right side (3); a distance of 4 inches separates the two round ligaments. At the upper and outer pole of the gestation sac is seen (2) the stump of the left tube and ovarian vessels ligatured close to the sac and thus preserving the ovary. Anteriorly no breach of surface is seen on the convex glistening peritoneal aspect of the sac, but posteriorly there are one or two faintly eroded areas where the peritoneum has lost its lustre, and serum exudes through at these areas on pressure. This has evidently been the source of the small amount of blood found free in the peritoneal cavity when the abdomen was opened.

These anatomical relations show that the case is certainly one of interstitial pregnancy on the left side of the uterus, since the left round ligament is inserted directly on to the sac on its anterior aspect, and the normal unaltered Fallopian tube lies well to the outer side of the gestation sac.

On opening the sac subsequently after hardening, the wall of the sac at its highest point is seen to be very attenuated in thickness. A "window" cut out here passes through a thin slice of placental tissue, and exposes a normal fœtus of three months' development, or perhaps rather more, connected by its umbilical cord to the placenta, which occupies the bulk of the inner surface of the sac. Sections taken through the sac wall demonstrate the presence of muscle and early placenta.

FIG. 2.



Anterior aspect. The gestation sac has been opened at its thinned-out apex, traversing placental tissue. A well-developed fœtus (third to fourth month gestation) connected by its umbilical cord to the placenta on the inner surface of the sac is seen outside an artificial opening made in the sac. The sac was about the size of two fists.

I am indebted to Dr. R. D. Maxwell, obstetric registrar at the London Hospital, for the above description of the specimen, and for superintending the preparation of the photographs herewith reproduced.

Remarks.—Interstitial ectopic pregnancy is much the rarest variety of tubal gestation. It is also one of the most

dangerous, because, owing to the walls of the sac being formed of uterine tissue, pregnancy proceeds generally to a more advanced date than is the case in the other varieties of tubal gestation. When, therefore, the sac does rupture a large and often fatal amount of blood is rapidly lost owing to the relatively large size of the vessels. Thus, in this variety of ectopic pregnancy, once rupture has occurred there is much less chance of having the opportunity to operate in time to save the patient. It is, of course, quite true that in the commoner kinds of tubal pregnancy—the isthmic and the ampullar—a fatal quantity of blood may be lost; the loss, however, owing to the smaller size of the vessels concerned, takes place more slowly, and, if the case is seen fairly soon, the probability is that the operation will be successful. It is obvious how important it is, therefore, in cases of interstitial pregnancy, to recognise its presence as soon as possible and to operate without delay. In the case narrated above the diagnosis was not absolutely made before the abdomen was opened. It was evident, however, that the patient was seriously ill and in great pain, and that there was an abnormal swelling to the left of the uterus and closely connected to it. In the presence of such conditions it is undoubtedly the best thing to perform laparotomy, and ascertain exactly what is wrong. A point of some interest in the history of cases of interstitial gestation is that usually there is persistent amenorrhœa up to the time when the case comes under observation, whereas in other forms of tubal pregnancy more or less irregular hæmorrhage is found to have occurred in the great majority of the cases. A point requiring consideration during the operation in interstitial pregnancy is as to whether it is possible to excise the sac, or whether it is better to perform hysterectomy. No doubt in some cases, where the sac is small, it may be safely excised. When, however, the sac is as large as it was in the case just recorded, I feel sure the safest plan is to perform hysterectomy.

Upper Brook-street, W.

A NOTE ON THE CARDIAC DIASTOLIC SOUND AND IMPULSE.

BY THEODORE FISHER, M.D. LOND., F.R.C.P. LOND.,
ASSISTANT PHYSICIAN TO THE EAST LONDON HOSPITAL FOR CHILDREN.

COMMON though a diastolic sound audible at the apex of the heart is, there seems to be some confusion in the minds of many as to its significance. When sufficiently loud to attract the attention of the comparatively inexperienced auscultator mitral stenosis is frequently diagnosed. Not long ago I met with a striking illustration of this. It fell to my lot to examine a considerable number of children in whom disease of the heart had been diagnosed at some previous period, generally a year or longer before, and in several of the children a presystolic murmur, thought to indicate the presence of mitral stenosis, had been noted. When I listened it was evident that in many of the cases in which a presystolic murmur had been heard no organic disease was present. In these cases the so-called "presystolic murmur" no doubt had been a diastolic sound which had disappeared.

A murmur which is heard at one time by a medical man and not heard at a later period by another is generally assumed to have been a so-called "functional" systolic murmur or possibly an exocardial sound. It probably is true that in the majority of instances a murmur which attracts attention and then disappears is systolic in time. A diastolic sound, however, is also a sound which may be present for only a short period, and consequently when we are informed that a murmur has been previously heard which we fail to detect, it seems to me that the possibility of a diastolic sound having been at one time present and assumed to be a murmur should not be forgotten.

The hearing of most of us, no doubt within certain limits, differs in its power to note the occurrence of sounds of various grades of intensity or of pitch. Some probably are comparatively sensitive to high-pitched sounds, others to those of low pitch. Exocardial sounds, for example, may easily attract the attention of some, while a dull diastolic sound will appeal more readily to others. To me a diastolic sound of faint character is so commonly heard that I might almost describe it as a normal sound of the heart. Even a sound which should be sufficiently well marked to be heard by the majority seems to me to be not infrequently heard over the hearts of people in the very best of health. While, however, this appears to me to be true, it is scarcely necessary to remark that the diastolic sound is most distinct in various abnormal conditions. But these conditions are often only passing. The presence of a well-marked diastolic sound audible over the heart towards the end of some cases of typhoid fever and its disappearance during convalescence is well known. But during ailments of slighter character this sound, although not uncommonly present, may not so often attract attention. An ill-defined febrile attack of a few days' duration may in a child be quite sufficient to lead to the appearance of the sound, and it is frequently heard in comparatively chronic conditions of ill-health, such as dyspepsia or anæmia. The listlessness and unusual inactivity of a temporarily debilitated child may lead to the suspicion on the part of the relatives that something may be wrong with the heart, and there is a danger probably that the discovery of a diastolic sound may lead the medical practitioner to share this view. Less commonly restlessness rather than inactivity may give rise to concern in the mind of the parent, and over the heart when restlessness is a sign of temporary ill-health a diastolic sound may also be heard.

Here it may be mentioned that when a diastolic sound is well-marked a diastolic impulse is also present which can be felt by the hand placed over the heart. A tracing can be taken with a cardiograph or with Dudgeon's sphygmograph of such an impulse. The pressure employed, however, should be slight. Under too great pressure the wave due to the diastolic impulse does not appear on the tracing. This ease with which the wave may be obliterated renders its impulse to be felt much more easily by the hand than recorded by a tracing. Fig. 1 represents a tracing taken from over the heart of a boy, aged 11 years, who had never suffered from rheumatism or from pains in the joints. He was brought to be examined by his mother on account of restlessness. He appeared to be intelligent but nervous. On auscultation a dull but very distinct diastolic sound was audible at the apex of the heart. Associated with the sound was an impulse of which a tracing was taken. Five years later the boy was again seen. He was then a healthy, well grown lad working on a farm. No trace of anything abnormal could be detected in his heart.

FIG. 1.

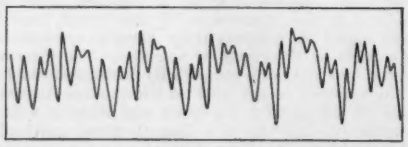
A cardiographic tracing taken with Dudgeon's sphygmograph showing a diastolic wave preceding the rise due to systole.

Although a diastolic sound is commonly present in association with temporary ill-health in which the heart probably suffers, it is perhaps most marked in cases of organic disease, but in those cases the sound may be strangely inconstant. That is to say, it may be distinctly audible one hour and not the next. The character of the impulse and the character of a cardiographic tracing, as might be expected, change with the alteration of the sounds. Over the heart of a man suffering from alcoholic disease of the heart within the space of half an hour I have obtained two tracings, one a normal cardiographic tracing, and the other showing a well-marked abnormal rise in association with the presence of a diastolic sound. In mitral stenosis the presence of a diastolic sound

distinct from the presystolic murmur is frequently observed. The sound need not, however, be limited to the apex like the true presystolic murmur, but may be widely heard over the heart.

In a discussion as to the probable causation of this diastolic sound I do not propose to enter, but it may be mentioned that the sound apparently may arise either in the left or in the right ventricle. When the sound is best heard at the apex it probably arises in the left ventricle. When more widely heard it may arise in both ventricles or in the right only. Over the right ventricle, as at the apex, the distinctness with which it is audible varies from time to time. Over the right ventricle the diastolic sound is not uncommonly best heard, and sometimes heard only at the moment that expiration ceases and inspiration begins. This is the moment at which an intermission of the pulse is frequently noted to occur in children. Although, as has previously been mentioned, it is not intended to discuss the

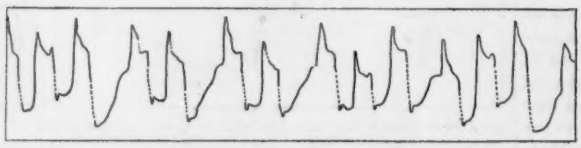
FIG. 2.



Tracing of a heart-impulse taken with Dudgeon's sphygmograph when a diastolic sound, part of a bruit de galop, was present. The sharply pointed wave preceding the notched systolic wave represents the position of the diastolic sound in the cardiac cycle. Respiratory undulations are also recorded in the tracing.

causation of a diastolic sound, possibly the fact that it frequently occurs when inspiration is commencing to lend its aid to diastole of the ventricles may be considered to support the view that a diastolic sound is in some way connected with active diastole. A fact which may also be urged in support of such a view is the occurrence of a diastolic sound in association with hypertrophy of the heart. The presence of the sound in the large heart of Bright's disease has frequently been the subject of comment. Another variety of hypertrophy in which the sound occurs is the hypertrophy associated with adherent pericardium in children. Here the sound may sometimes be so prolonged as to

FIG. 3.



Tracing taken from the same heart-impulse with Marey's cardiograph, showing the rise of the apex in diastole during intermissions. When this tracing was taken no diastolic sound was audible, and the wave before the systolic wave is absent.

be readily mistaken for a presystolic murmur. Fig. 2 shows a tracing taken from over the heart of a boy, aged 14 years, who died with a very large heart associated with adherent pericardium. During life a well-marked diastolic sound, in this case of bruit de galop rhythm, was audible. It may be interesting to compare the tracing taken over the heart when a diastolic sound was present with one taken when the heart was intermitting, but no diastolic sound was audible (see Fig. 3). In the second tracing there is absence of the sharp pointed wave preceding the systolic wave, a slow rise being present in its place before the systolic wave which follows an intermission.

The above remarks are intended chiefly to refer to the possibility of the sound being incorrectly thought to indicate the presence of valvular disease. The sound, however, always seems to me to be possessed of more than ordinary interest, and when one considers its frequency it is perhaps surprising that it has not been more often a subject for careful investigation.

BRITISH HEALTH RESORTS FOR FOREIGN INVALIDS.[1]

BY NEVILLE WOOD, M.D. DURH.,

HONORARY PHYSICIAN TO THE KENSINGTON DISPENSARY AND CHILDREN'S HOSPITAL.

AT the very threshold of my somewhat novel topic I am met by the necessity of surveying the subject as a whole rather than dealing, as I might otherwise have done, with certain of its more important details. This is due to the fact that even propositions apparently so elementary as that our British health resorts offer substantial benefits to foreign invalids or would gain anything from their presence will require some argument in their support. The policy, indeed, of most of the municipalities concerned would seem to exhaust itself in efforts to keep the Briton from foreign countries, rather than to bring the foreigner to ours. And while on this topic, I cannot refrain from protest against the appeals—short-sighted, if patriotic—issued presumably by responsible authorities, against our sending patients abroad rather than to this or that British resort. Considerations of dignity apart, do not such urgencies suggest an admission of weakness, an admission for which there is certainly no occasion? Much better—even for the ends in view—would be a frank recognition of the conditions under which a certain proportion of the invalids of any country do benefit by being sent out of it. By stating categorically the classes of patients unsuitable for home resorts, these writers would, it seems to me, improve their own position, as they would thereby strengthen the hands of practitioners in allotting to British stations the vast remainder of patients, who would be rightly sent there. Certainly, no well-informed British physician could conscientiously endeavour to dissuade all, or nearly all, his patients from seeking health in other lands, and I suggest that the proper way to redress an adverse balance is to take measures to attract those foreign invalids for whom it can be shown that the therapeutic resources of our country are peculiarly well adapted.

I have contended elsewhere (and towards the acceptance of this view at home and abroad the considerations urged in this paper are an additional contribution) that continental health resorts should not be regarded as competing with British health resorts, nor British with continental. They are, and that for immutable reasons, complementary to each other. And it is my conviction that when we succeed in making the inhabitants of the European mainland as well aware of the specific advantages of our stations as we are of the indications for theirs, there will be a free interchange of invalids, instead of, as now, a movement practically in one direction, and that away from our shores.

Let me illustrate by a single example the absurdity of the present position. In one of the most distant of the continental spas coming within the orbit of expatriated British invalids it is shown by statistics that 1 patient in every 30 hails from Great Britain, whereas at one of our leading spas it is estimated that less than 1 per 1000 comes from all the countries of the Continent put together. This is a state of things likely to continue as long as the literature dealing with our health resorts is written in English only, and as long as it passes over in silence the advantages, actual and potential, of our stations to foreigners in search of health and recreation. It will, in fact, continue just as long as we are content to allow foreign physicians and laymen to suppose that there exist in our islands no spas or climatic stations of the highest rank. In a well-known German manual describing the health resorts of Europe there is no mention of any in England. Again, in a similar French publication, in its forty-ninth year of issue, whereas six pages are allotted to Spain, two are considered appropriate for Great Britain, while various errors and omissions sufficiently indicate the absence of competent revision. It has, however, recently come to my knowledge that the editor of one of these books endeavoured, but without success, to procure

[1] A paper read before the Balneological and Climatological Section of the Royal Society of Medicine on Dec. 14th, 1910.

in London an authentic account of British spas. That, at least, was a manifestation of interest, and when I met with another in a request for a sketch of our seaside resorts as an addendum to the German translation of my little book "Spa Treatment," and received, further, the generous offer of a French translation of a work on British spas, it seemed to me the time had come to bring the whole subject before the council of this section, and to offer a paper, both to elicit criticism from the general body of our members and to enlist their active assistance in the task of making widely known abroad the climatic and balneary resources of Great Britain. Criticism is advisedly placed first; for it is not unlikely that I may, on the one hand, have overlooked strong points in, so to speak, the case for Great Britain; while, on the other hand, if the medical men practising in any of our health resorts are of opinion that there is no room for the introduction of foreigners, I should be disposed, in anything written for continental journals, to lay little stress on the particular stations considered suitable only for patients of our own nationality.

I think, however, that there can be but few of our professional health resorts which would not find the presence of a cosmopolitan element beneficial. In addition to the cash brought to its coffers (though possibly an almost negligible quantity for some years) an advantage to the station would be that the prospect of a steady increase in the number of patients from a fresh source would stimulate the zeal of the local authorities in effecting improvements, for I believe that in some instances these authorities would be more inclined to give heed to foreign than to native criticism, lay or medical. And, be it said, it is the absence of those amenities which are demanded by foreigners that forms one of the excuses of Britons for their annual pilgrimage abroad. The medical men, collectively, would be conscious of the incentive afforded by wider scope in the fields of scientific investigation and of practical therapeutics. But the watchword for practitioners, no less than for spas, is prestige, and a full measure of prestige will never be gained until British mineral water stations have added international fame to national repute.

Turning now to another aspect, I think that the writer who desires to trace the lines on which we may proceed to place before the foreigner the advantages of the British Isles for some invalids—and their disadvantages for others—best fulfils his task by abstaining from over-much refinement and by confining himself as far as possible to statements likely to meet with general acceptance. That must be my excuse for adhering, on the whole, to the conventional and inclining to the methods of dogmatism. I will begin, then, with the general proposition that when health fails in one set of surroundings common sense suggests an entire change; while in its application to my immediate purpose I think attention may justly be called to the fact that in many ways our island differs more from all the continental countries than do they from each other. It follows, therefore, that in the numerous instances when change of environment is demanded, whether for its own sake or as an adjunct to treatment, balneary or climatic, the health resorts of Albion merit the attention of clinicians in very many lands. And since our foreign *confrères*, like ourselves, sometimes fail to obtain sufficient control over patients who remain within motor distance of home or business, it may be suggested that the plan of placing a strip of water between an invalid and his cares is not less advantageous for dwellers on one side of the Channel than on the other.

Passing from the general to the specific, and dealing with the limitations as well as the merits of British spas, it may be taken as certain that not many patients will be sent to them from the European mainland for an intensive bathing course alone, our cool climate not serving as an auxiliary to that form of treatment. Nor will large numbers come solely for a drinking course, since we possess no waters of types which are not well represented on the Continent. Regarded purely from the climatic standpoint, however, every part of Britain has the decisive advantage of being at its best for a special purpose just when most of the continental stations, and certainly all the spas (unless perhaps St. Moritz), are at their worst. That purpose is active exercise in the fresh air, and that season includes the greater portion of July with the whole of August—the most crowded months of the summer season. Now it might be supposed that the point I have just made does not deserve so much emphasis, for in England we commonly overlook this aspect of spa treatment. But in Germany and Switzerland conditions exist which compel physicians, not infrequently, to have recourse to the manœuvre suggested; and I have some reason for thinking that France must shortly follow suit. It is true that foreign spas offer to the enfeebled superior incentives to the less severe forms of physical exertion, but a long and really brisk walk becomes a trying ordeal therein the hotter months even for persons in the best of health. The cooler climate of Britain, on the other hand, favours all kinds of outdoor exercise, including, of course, the best of all—the Royal and ancient game of golf.

Taking all these considerations together, we at once perceive that the categories of foreign invalids for whom our spas are typically suitable include those who thrive in a relatively cool climate and are able to walk well; those who in association with complete change derive benefit from baths which are neither very hot nor taken in close succession, and, of course, those whose maladies are held to be tributary to the waters we possess—that is to say, the muriated, sulphuretted, indifferent, earthy, and alkaline sulphated. Such waters, as everyone here knows, are well represented respectively at Llandrindod, Harrogate with Strathpeffer, Buxton, Bath, and Cheltenham; while there are iron springs at many spas, strong salt water at Woodhall, and brine at Droitwich. All of these resorts are sufficiently well-equipped balneologically, and in their different ways compare not unfavourably with the corresponding continental spas.

There is a charge which has so often been levelled at our spas that it cannot be left unnoticed. Stated bluntly, it is that they are intolerably dull. Denial, admission or apology, must be left to other writers. Comment sufficient for my purpose is that, taking together all continental spas, there are not more than five which can definitely be described as gay. In a large proportion of the remainder tranquillity reigns. Yet these essentially restful resorts are visited annually by thousands of invalids—by invalids who do not desire the amusements of a great city or the excitement of Monte Carlo. It is from this sufficiently large army of health-seekers that recruits may be drawn for a pacific invasion of our island.

Uncertainty of weather, or, in other words, excessive rainfall, is an apparently more formidable objection, but I would point out that on the European mainland also a spa season may be spoilt by persistent downpour. Such was the case this year throughout the continent, and last year in the northern stations. It must be admitted that the month of June is more often wet and cold with us than abroad; but in July and August less rain falls in the eastern division of England than at some of the stations of Western Europe. In the West of England the rainfall is no doubt considerable, but in summer it is not quite the drawback that might be supposed, for during the showers the patient can sit or promenade on a veranda, while even if driven indoors he need not, and should not, close the windows. If proper open-air galleries were erected at British spas patients coming for a serious cure would be rendered practically independent of rain; the existing structures, known as winter gardens, might well be called summer penances.

As a concluding observation on the subject of British spas from the international point of view, I suggest that whereas for Britons they may be regarded as mineral water stations, with climatic advantages, for foreigners their rôle is rather that of climatic stations, with the advantage of mineral waters.

I trust that enough has now been said to establish my contention that our spas can render important services for a goodly number of patients from beyond the seas. When the sketch comes to be filled in, and the specific merits of the separate stations are properly defined, it will, I think, be found that their utility stands out in still more marked relief. For these purposes a volume is now under consideration, with authoritative monographs written locally, and the whole collated by whatever chapters may appear to be necessary. Entire candour will, I hope, be the key-note of this work, for spa literature without that quality is fit only for the scrap heap.

Passing on now to our seaside resorts, I believe them to possess for foreigners many advantages which, if not so well defined, are even wider in range; these resorts may, in fact, be regarded as alternatives for some continental spas, as well as for climatic stations, inland and maritime. It has been shown by Frankenhäuser that many of the inhabitants of

central Europe, and especially those who are anæmic, nervous, or scrofulous, suffer in the height of summer from the extreme dryness of the air which persistently overworks the evaporative function of the skin. He explains that the benefit derived by such persons from a course of spa treatment is largely due to the re-hydration effected by a series of immersions in mineral water baths. During the bath, and after it, the hygroscopic salts pass into the superficial layers of the epidermis and remain lodged there; and thus, as he expresses it, the patient becomes clothed in a gossamer mantle of deliquescent salts, which, by checking evaporation from the skin and neutralising the effects of abrupt changes of temperature, places the overstrung organism in a state of relative physiological repose. This action is supplemented by the air at most of the German spas, rendered relatively moist by afforestation and other factors, while it is carried a stage further by the still greater humidity of the seaside resorts.

Anyone reflecting on Frankenhäuser's carefully reasoned argument, which I regret could only be given in the merest outline here, will, I think, admit that we are entitled to supply as a missing corollary that the climate of our island, from its greater humidity and equability, provides even more effectively the atmospheric conditions required by the categories of patients to which he refers. It is arguable also that if immersion in mineral water has the influence claimed for it sea bathing must be even more potent, for the organic matter in sea-water renders it peculiarly adherent to the skin. One of the reasons for the increase in the number of Germans visiting the coasts of their own country and Belgium may be the perception of the fact that greater hydration of the skin is effected by the combined influence of sea air and sea water than by mineral-water baths, taken in the drier air of the German spas, even when assisted by inhalation of atomised salt solutions.

It is unnecessary for my present purpose to enter into a detailed discussion on thallasso-therapy, for I find the opinions recorded in French and German literature to be substantially in accordance with our own. But from the indication list of Thilenius, the most concise I have met with, I should like to subtract migraine and rheumatism, which I believe to be seldom indicated, and rickets, which can scarcely be considered a specific indication. I imagine, also, that most English authorities would agree in the addition to the list of convalescence from acute disease; while I think that we should lay stress on the special benefit derivable in our humid climate by patients suffering from the dry form of respiratory catarrh—a condition frequently met with in central Europe. The remaining indications given by the authority mentioned are: the scrofulous diathesis; tuberculous disease of bones, joints, and glands; predisposition to phthisis; emphysema of moderate degree; delicacy of the skin, and especially undue sensitiveness to cold; delayed development in childhood; and last, not least, neurasthenia from mental or physical overstrain.

The indication, predisposition to phthisis, calls for comment, since Dr. J. W. Gordon has drawn attention to the high ratio of phthisis morbidity in places exposed to strong prevalent rain-bearing winds. I suggest, therefore, that until this phenomenon is explained on other grounds we should caution our foreign colleagues against sending patients predisposed to the disease to the more exposed of our westerly stations.

Of the sea coast of Britain it is not too much to say that although it is impossible to point to any part which has not in summer an agreeable climate, yet climatic variety is its leading characteristic. Facing every point of the compass, some with scarcely any shelter from the wind, others well protected in land-locked bays, there are towns and villages presenting from June to September a graduated scale of invigorating climates not to be found on any other European seaboard and surpassed only by the antipodean island of New Zealand. There are, in addition, some adjacent inland stations where the climate under modified marine influence is remarkably well suited for patients who find the coast too stimulating.

The summer climate of our south coast from a point a little to the south of Margate on the east, to Penzance on the west, may roughly be compared with that of the French coast from St.-Pol-sur-Mer to Roscoff, or perhaps le Conquet, but local factors introduce so many modifications that there is little resemblance between the individual resorts. In winter, however, our best sheltered stations, from Bournemouth westward, owing to their southerly orientation, enjoy a milder climate than those of the French coast opposite. There is no maritime climate in France closely comparable with that of the east coast of Britain, from Margate to the north of Scotland, nor with the west coast, from Weston-super-Mare to the Hebrides. On the other hand, we have none in any way resembling that of the French coast from Arcachon to Hendaye, and still less that of the Côte d'Azur; but these regions, and especially the latter, scarcely come into the count as summer stations, at any rate for northern peoples.

Regarded from almost every other standpoint, the seaside resorts of the two countries lend themselves rather to contrast than comparison. For persons seeking the brightness and particular kind of gaiety of Trouville we have nothing to offer. They might as well ask for the Alps at Enghien or the Quartier Latin at Paramé. I do not know, moreover, in England of any little nooks of a type not uncommon in France, and well represented by Pourville. Places of that size are with us usually rough fishing hamlets, and hotels in any way equal to those in France are not to be found. For foreign invalids the most suitable of our seaside stations are those of moderate size. They are described by visitors who like them as dignified, well administered, and offering no form of excitement likely to distract attention from the pursuit of health; by those to whom they do not appeal, and who, of course, should never have been sent there, as insufferably dull. Eschewed in England by the "fast set," they attract the more sedate of the aristocracy and the steadier members of the professional and commercial classes, and so may well prove intolerable on the one hand, or congenial on the other, to corresponding sections of French society.

Between the long and indented coast line of Britain and the shorter and less varied German littoral not many comparisons can be drawn. Still, it is useful to remember that the mean summer temperature of the southern part of our east coast is about the same as that of the North Sea island of Borkum, while that of the northern portion finds its counterpart in the island of Keitum. These localities have other features nearly in common, the daily range of temperature on our east coast being only fractionally less and the hours of bright sunshine rather fewer, while the relative humidity is a little greater. I have not been able to procure the rainfall figures for all the stations, but between two that are sometimes compared I have found a rather surprising difference. In summer, when they come into rivalry, the rainfall of Margate, the most southerly of our east coast stations, is much less than that of Borkum; during the three summer months the mean rainfall for Margate being 112 mm. and for Borkum 212 mm.; while August, the driest month in the year at Margate, with 24·9 mm., is, at Borkum, the wettest, with 89 mm.

Of the Baltic resorts I have come across meteorological statistics only for Swinemünde, and it is interesting to note that the figures of mean summer temperature, and mean relative humidity, agree closely with those of Bournemouth.

In comparison with those of Germany, our coast towns have been longer resorted to for health and pleasure, and so have the advantages of age—with its disadvantages. Some of them are much larger, and the greater preponderance of a population permanently resident lends them a more sedate air. Laid out, originally, on no definite plan the minor streets are sometimes unduly narrow, and those towns which had their great rise during the worst period of English architecture are, it must be owned, frankly hideous. Thus is painted first the darkest side of the picture—the æsthetic. On the other hand, we can state as very solid advantages that their sanitation and water-supply are always unimpeachable, and that they are usually as neatly kept as the very best of continental spas. Along the sea front of the more important towns there are many miles of concreted walks, usually provided with rain-shelters, and also carriage roads of easy gradient. It is, indeed, the stereotyped repetition of a sea-front promenade, designed apparently to illustrate Euclid's definition of a line, that gives the British seaside town its distinctive *cachet*. It constitutes a feature of psychic as well as physical import, for not even the attraction of bands and minstrels can bring together, at the same time and in a limited area, a concourse of people sufficient to create a scene of animation such as we see in

foreign health resorts. At the hôtels, even when a *chef* presides, cookery is modified to suit insular taste, and the made dishes resemble somewhat those served at the *tables de régime* of continental spas.

More space than is taken up by the whole of this paper would be required for a study of the medical climatology of our east, west, and south coasts. That is a task which I hope to see attempted in the near future, and I would merely point out that whoever undertakes it, if he endeavours to view the subject through foreign glasses, will, necessarily, give some indications which would not hold true for English people. I have observed, when treating foreigners in London, that usually the sick-room temperature must be kept from one to three degrees Centigrade higher than would be tolerable to English patients. The explanation of this difference is, I suppose, that the winters on the Continent being longer and colder more efficient methods of domestic heating have been adopted, while the summers being uniformly warmer the body is exposed during the greater part of the year to a higher mean temperature. For that reason I believe that some of our winter stations will be found to be typically suitable in the height of summer for many continental invalids, the more delicate being directed to the south coast, though if delicacy is associated with a fair degree of physical activity the west coast should be given the preference. Thus the word "relaxing," hitherto dreaded as a death sentence, may prove a passport to renewed prosperity. When the foregoing principles come to be applied in practice, it will be found that foreign invalids may, with advantage to themselves, be sent to some of our stations just at the time when Britons are accustomed to desert them—a fortunate circumstance—for during the official season there is often little room for additional visitors.

The western section of the south coast would seem to me to be well adapted for patients suffering from simple catarrh of the air passages, after a course of intensive treatment at Ems or Mont-Dore. It would be on the safe side to represent the east coast as a summer playground for the fairly robust, or, using the word in a wide sense, as a "preventorium." Certainly there is no better preparation for the rigours of a winter in northern Europe than a month in autumn spent on almost any part of our east coast.

Since the coast line of Britain presents an almost continuous chain of summer health resorts, reasons might be offered for mentioning the greater number of them for the purpose indicated by the title of my paper, but even from a severely restricted selection I submit that the following, taken in geographical order, could not well be omitted: Cromer, Felixstowe, Margate, Hastings, Eastbourne, Ventnor, Bournemouth, Sidmouth, Torquay, and Tenby. Happy is the writer or speaker who is not called upon for full enumeration or to distinguish between the claims of so many famous places, for so fiercely burns the flame of local patriotism that whereas by commendation few friends are gained, by criticism a harvest of enmity is reaped.

I have left insufficient space for characterisation of the inland climatic stations—and you will readily forgive the omission. But if this communication should fall into the hands of any of our foreign colleagues I will ask them to accept the assurance that in Britain, from John o' Groat's to Land's End, it would be difficult to find an ugly district or one not typically healthy in summer; and that at the same season for the ideal of air, bracing yet not devoid of sedative qualities, there are few places in the world superior to Hindhead, Crowborough, Church Stretton, Ben Rhydding, and Okehampton in England; Braemar and countless others in Scotland. Strict regard for truth compels me to add that in these places amusements in the continental sense of the word are non-existent. No foreigner should go there who does not speak English well; he should take with him golf clubs and faithful friends.

In writing this short sketch I am well aware that I have but touched the fringe of a great subject. I shall be satisfied if by anything I have said the interest of foreigners is stimulated in our island as a health resort and summer playground, and still more if British physicians are induced, filling the wide gaps I have left, to present to the world in a fresh light the splendid climatic and mineral water stations of their own country.

Elvaston-place, S.W.

THE USE OF IODINE AS A DISINFECTANT OF THE SKIN BEFORE OPERATIONS.

BY WILLMOTT EVANS, M.D., B.S., B.SC. LOND., F.R.C.S. ENG.,
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WITHIN the last five years many articles have appeared in the medical journals on the value of iodine as an antiseptic in preparing the skin of the patient for operation, and sufficient time has now elapsed to enable those who have employed it to express decided opinions as to its value. The first advocate of its use in this country was Mr. H. F. Waterhouse, and with his conclusions as a whole probably all those who have used it will agree. But there are a few points in connexion with the use of iodine on which I should like to express my opinion.

I may say at the beginning that I think very highly of this method of sterilising the skin. It is simple and thorough; it causes less discomfort to the patient and has a less harmful effect on the skin; and when it is employed stitch abscess is decidedly less rare than when the ordinary antiseptic compress has been employed. The application of iodine is certainly liable to cause some irritation to the eyes and nose of those who apply it, though there are great individual differences in this respect. I should like to endorse what Mr. Waterhouse said in his article in THE LANCET[1]—namely, that the irritation to the surgeon and his assistants is much less if the iodine is dissolved in rectified spirit than if methylated spirit be the solvent employed. Chassevant used chloroform as a solvent, 30 parts of it dissolving 1 part of iodine, and I am inclined to think that this solvent would have some advantages. It is hardly necessary to say that it is essential that the part should not be washed before the iodine is employed, or if it is considered that washing is really necessary several hours should be allowed to elapse between the washing and the application of the iodine.

Mr. Waterhouse applies the iodine twice: first, two hours before the operation and then again immediately preceding the operation. I have thought it advisable to adopt this method in certain cases where the skin was in a very septic condition and many séptic foci were present; but I have not found it necessary in the average "clean" operation, in which tissues are incised where no obvious sepsis is to be found, and I have been perfectly satisfied with the results. It is often, in my opinion, useful to wipe over the surface of the wound immediately after the operation, though if any lotion or even saline solution has been employed during the operation the iodine will have little penetrating power when subsequently applied.

The strength of the iodine solution requires, I think, a little further consideration; in some of my earlier cases I used a 4 per cent. solution, but it seemed to me that it had a very definitely harmful effect on the edges of the wound, and it exerted a slight retarding action on healing, and the same result was seen, though to a less extent, with a solution of iodine of the strength of the official tincture—namely, 2½ per cent. Later I used a solution weaker still—that is to say, half tincture strength, 1 in 80, or 1·25 per cent. I am sure this is amply strong for all ordinary cases.

A rather important question is how should the site of operation be shaved if iodine is to be used for the antiseptic. It is clear that ordinary soap cannot be used, otherwise the skin will be left in a condition exactly resembling that produced by washing, and the iodine solution will not be able to penetrate the epidermis. The use of solvent pastes which are much employed in America for removing the hair previous to operations is open to the same objection as ordinary soap and water, for the skin becomes sodden and will not permit the passage of the iodine. The method that seems to me to be the most convenient is to cut the hairs short with scissors and then to shave the part dry with a very sharp safety razor. By this means it is possible to get a very smooth surface without the use of any moisture. It is essential that the razor blade should be extremely sharp. It may be objected to this method that it is somewhat painful, but it need not be used until the patient is under the anæsthetic immediately before the iodine is

[1] THE LANCET, April 16th, 1910, p. 1063.

applied. Some surgeons have the part shaved several hours before the operation, so that there is time for the sodden condition of the epidermis to pass off before the application of the iodine, but this requires at least six hours or even 12 hours, and in this time some growth of hair will occur. Still, it is not a matter of much importance so long as an attempt is not made to apply iodine within a short time of shaving the part in the ordinary way.

Perhaps it is worth while to say a few words about colourless iodine. In all the various external applications of iodine attempts are often made to employ one of the "colourless iodines," and I only mention the point here in order to draw attention to the fact that colourless iodine has very little antiseptic power. Iodine is decolourised in several ways: by the use of any of the alkalies, by carbolic acid, by sodium thiosulphate, and by sodium sulphite, but in every one of these methods the iodine enters into combination, and thereby loses all or the greater part of the antiseptic power for which it is chiefly employed. For instance, if caustic potash is used potassium iodide and potassium iodate are formed and no free iodine is left, and it need hardly be said that neither the iodide nor the iodate of potassium has any great antiseptic power. Therefore, these "colourless iodines" are useless for sterilising the skin, and, in fact, they are of very little value for any purpose.

Harley-street, W.

PULMONARY TUBERCULOSIS TREATED BY CONTINUOUS ANTISEPTIC INHALATION.*

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IN the issue of THE LANCET of Nov. 19th, 1910, p. 1505, in commenting on an interesting article by Dr. David B. Lees on the above subject published in that number, you remark: "It would be interesting to know whether other physicians obtain the same results." In compliance with this suggestion I venture to send you an account of my own observations made some years ago on this method of treatment. So long ago as August, 1876, I read a paper at the annual meeting of the British Medical Association at Sheffield, in which I called attention to the value of antiseptic inhalations in the treatment of phthisis. I was then on the staff of the Brompton Consumption Hospital. In that paper I mentioned the curious circumstance that Dr. J. Copland had reported the case of "a young man who had repeatedly come under his observation in an advanced stage of phthisis and had recovered completely his health after he had been for a considerable period employed in the manufacture of creasote." Here there must have been an approach to "continuous inhalation." That excellent observer, Dr. A. E. Sansom, had also testified to the "real value of the dry inhalation of carbolised acid in phthisis." To refer again to Dr. Copland, in his "Historical Sketch of the Treatment of Pulmonary Consumption," he observes: "The inhalation of the fumes of tar or of creasote, or of the terebinthinates very weakly diffused in the atmosphere breathed by the patient, is in some cases beneficial in impeding the advance of tuberculosis, or the formation of cavities, and in healing the surfaces of cavities which have been formed."

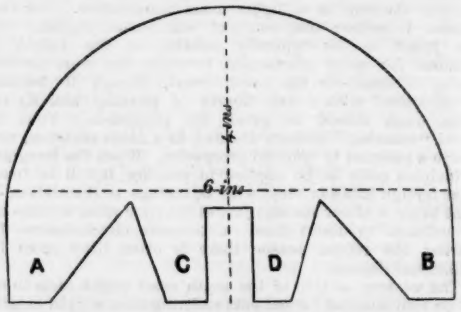
About that period Dr. (afterwards Sir) W. Roberts of Manchester described[1] a little respirator inhaler which he had devised for the inhalation of volatile antiseptics, and he testified that he had noticed benefit follow the use of these inhalants. He mentions cases of hæmoptysis in which the hæmorrhage ceased immediately on the use of inhalation of turpentine; also cases of phthisis with disease in both lungs and with very profuse purulent expectoration, in which the inhalation of creasote and iodine was of great apparent benefit; of laryngeal phthisis in which great relief followed the inhalation of equal parts of chloroform and olive oil. He had also found inhalations of the oil of eucalyptus of much value in relieving the cough and profuse expectoration in advanced phthisis.

[1] Brit. Med. Jour., Feb. 3rd, 1877.

In 1882 I again called attention to this subject in two clinical lectures I gave in King's College Hospital on "The Contagiousness of Pulmonary Consumption and its Antiseptic Treatment." These were subsequently published in a small volume which has been long out of print. Therefore, I may perhaps be permitted to quote from it here. After referring to Professor Jaccoud's treatise on the "Curability and Treatment of Pulmonary Phthisis," in which he testifies to the good effects of the internal use of creasote and the inhalation of a spray of carbolic acid, I describe a respirator inhaler for the continuous inhalation of antiseptic vapours which I had found to be extremely handy, light and convenient to wear, and very cheap. I described how they could be readily made.

You take a piece of paper about six inches long and four wide; you fold it along the middle, and cut it with a pair of scissors into this form. This is your pattern. (Fig. 1.) You place this on a piece of perforated

FIG. 1.



zinc, which costs about sixpence a square foot, and then, with a pair of stout scissors, you cut out a piece of zinc of the same size and form as the paper. By a little manipulation, for this zinc is very pliable, you can bring the two outer ends (A and B) together, so as to slightly overlap; and then, fixing them together with a twist of fine wire passed through the holes of the zinc, you get a suitable mouth-piece, or rather nose and mouth-piece, for it is important, I consider, to cover both nose and mouth. This can be bent to fit comfortably any face.

The two middle pieces (C, D,) now stick out behind, and, by gradually bending first one of these down, and then the other over it, you construct a little cage behind the mouth-piece which will hold a small bit of sponge, or a bit of tow or cotton-wool, or any suitable material for retaining the antiseptic vaporisable fluid. It is desirable to cover the rough edge of the mouth and nose-piece with some protecting material; a loop of elastic on each side serves to attach it behind the ears.

Messrs. Squire, of 413, Oxford-street, have now for many years made this little respirator inhaler, and in the form shown in the following figure (Fig. 2). This was immediately copied

FIG. 2.

The respirator in position.

in America in a slightly modified form by Messrs. Wyeth of Philadelphia, and it is described by Professor S. Solis Cohen in Hare's "System of Practical Therapeutics" as "one of the most useful as it is one of the simplest devices for the inspiration of medicinal vapours."

I go on to say that there are many antiseptic substances

the vapour of which may thus be continuously, or almost continuously, diffused into the air that is breathed.

Your choice may depend somewhat on the fancy of the patient, or you may change the applications, from time to time, until you find out in each case which is most useful.

Some simply keep the sponge moistened with carbolic acid, others prefer creasote, and others use spirits of turpentine. I have used all these alone as well as in combination. I have also used eucalyptol, thymol, terebene, oleum pini sylvestris, solution of tar in rectified spirit, tincture of benzoin, tincture of iodine, &c. Of all these I prefer creasote, but I also frequently use carbolic acid and eucalyptol. Turpentine is a useful addition as an astringent where there is profuse secretion or a tendency to hæmorrhage. I have also found it a very convenient plan to mix these substances, such as creasote, carbolic acid, eucalyptol, or turpentine, with equal parts of spirits of chloroform. It helps to diffuse and vaporise these substances and it is itself somewhat of an antiseptic, and it has also a soothing effect on the often irritable laryngeal and bronchial mucous membrane. A patient tormented with cough at night and unable to get any sound sleep will often obtain relief from this distressing symptom by using at bedtime one of these inhalations in an instrument of this kind. The quantity required for this purpose is often quite inconsiderable; it is rarely necessary to use more than twenty minims at a time of a mixture of equal parts of creasote and spirits of chloroform dropped on the sponge, and renewed occasionally as it becomes exhausted; and it is often desirable to begin with very small quantities, until the patient gets used to the vapour. One of the advantages of this little inhaler I have described is that, being perforated all over, the access of air is unimpeded, while the vapour diffuses itself freely into the immediately surrounding atmosphere.

I have adopted this plan of treatment in a number of cases, and in nearly all of them it has been attended with conspicuous benefit. Even in somewhat advanced cases it allays the cough, lessens the amount of expectoration, and diminishes the fever.

There is a young girl, 12 years of age, in the hospital now, an orphan with no obtainable family history, who was admitted three months ago in a wretched general condition, and apparently sinking from rapid phthisis. There was dulness all over the left side, with co-extensive moist crepitant and coarse râles; there was diminished resonance over the upper half on the right side, with diffused bronchial râles. The temperature was high and fluctuating, constant cough, much dyspnœa, loss of appetite, and great emaciation. She has been kept inhaling a mixture of equal parts of eucalyptol and spirits of chloroform; and, considering the miserable state in which she was on her admission, she has mended wonderfully. She coughs now very little, her appetite is good, she has gained flesh, and become quite cheerful. The moist sounds have completely disappeared from the right side, where the resonance is now good, and on the left side the catarrhal sounds have, to a great extent, disappeared, and the dulness is now limited to the upper lobe. She continues, however, to present a subfebrile fluctuating temperature.

I could enumerate a great many cases which have come under my care in which remarkable results have followed this method of treatment when it has been honestly and faithfully carried out. I wish to call your attention to the particulars of one such cure, in which, I must say, I have never seen better immediate results from this or from any other kind of treatment.

The patient was a married lady, 28 years of age, living in a low, damp locality, who had lost two brothers from consumption, one at 19 and the other at 23 years of age. She had had a cough for two years and had been losing flesh. She had been worse since her last confinement. Night sweats were constant, cough was troublesome, and expectoration abundant. Her voice began to be hoarse a fortnight ago, and was now nearly lost. Her appetite was bad. Pulse 112; respirations 20; temperature 101° F. She was considerably emaciated. There was some dulness over the left apex in front and behind, with moist clicks at the end of inspiration and some diffused largish crepitations on coughing. On the right side subcrepitant râles were heard over a spot just below the angle of the scapula, where there was also a patch of dulness. She was ordered to wear as constantly as possible one of my inhalation-respirators, charged with from 5 to 20 drops at a time of a mixture of equal parts of creasote and spirits of chloroform, so as to breathe an atmosphere only as strongly impregnated with the antiseptic as was quite comfortable to her. It was also agreed that she should remove to an isolated farm-house built on a hill 300 feet above the sea, between 30 and 40 miles from London, on the borders of Hampshire and Surrey, where there were pine woods and open heather country. She came to see me again after about three weeks, and she had improved immensely. The temperature had become normal; the night sweats entirely disappeared after a week of the treatment; her voice had returned after ten days; the cough and expectoration were greatly lessened. The dulness of the left apex was much less evident, but respiration there was feeble, and there was a distinct pleuritic creak in the left supraspinous fossa, a notable sign of past mischief in that region; all the moist sounds had disappeared. Her general condition had completely altered.

I had never seen a more striking improvement in so short a time under any plan of treatment or in any locality. But this patient had been unusually obedient to the instructions that had been given her. She had devoted herself at once and unhesitatingly to all the details of the treatment. She had removed immediately to an aseptic, if not an antiseptic, atmosphere; she had passed a great part of her time in a hammock suspended between fir-trees, in the situation I have mentioned, and she had perseveringly worn her inhaler as I had directed.

Dr. J. G. Sinclair Coghill, who was at that time physician to the Royal National Hospital for Consumption at Ventnor and had quite exceptional opportunities of testing this method of treatment of consumption, became a warm advocate of its adoption and devised a special respirator for the use of his patients, but it had the defect of only covering the mouth. He states that he had found "carbolic acid, creasote, and iodine, in combination with sulphuric ether and rectified spirits of wine, the most efficacious and satisfactory inhalant." In my "Manual of Medical Treatment" (Vol. II., Chap. IV.) I have given the names of many authorities who have testified in favour of this treatment, including Wilson Fox, McCall Anderson, Oertel, Solis Cohen, Dreschfeld, Semmola, Shingleton Smith, Mayo Robson, and others, and I have there given a detailed account of the method. I have been much gratified to see that it has now found so able and experienced an advocate as Dr. David B. Lees.

At one time, when I was on the staff of the Brompton Consumption Hospital, during which period more than 27,000 patients came under my care, I had very exceptional opportunities of applying and watching the various methods which had been advocated in the treatment of this widely spread malady; and I had formed, as I have said, a most favourable opinion of this method. But after the termination of my connexion with the Brompton Hospital these opportunities disappeared, and my studies in clinical therapeutics took and retained a more general character.

Cadogan-place, S.W.

PERITHELIOMA (ANGIO-SARCOMA) OF THE GREAT OMENTUM; EXCISION.

BY W. GIFFORD NASH, F.R.C.S. ENG.,
SURGEON TO THE BEDFORD COUNTY HOSPITAL.

THE patient, a nurse, aged 43 years, on Jan. 1st, 1909, whilst lifting an old lady, felt something give way in her abdomen. On the 7th she came to see me complaining of pain and discomfort in the abdomen which had continued since the strain. She was a short stout woman, and examination of the abdomen showed nothing except some tenderness below and to the left of the umbilicus. I thought she had strained her left rectus muscle. On the 12th she had discomfort and flatulence. On the 16th I found the abdomen prominent, with evidence of a fluid swelling in the central portion. There was resonance in both flanks and along the transverse colon. The local condition suggested torsion of an ovarian cyst, with rapid increase of size. She was admitted to hospital on the 17th and next day the abdomen was opened in the middle line below the umbilicus. Eight pints of dark bloody fluid were evacuated. The pelvis contained several subperitoneal uterine fibroids, the largest of which was removed. Higher in the abdomen was found a soft fleshy mass which felt exactly like a placenta. This proved to be the great omentum, infiltrated with blood and oozing on the surface. There were no adhesions. The omentum was clamped in sections, ligatured with catgut, and removed from its attachment to the transverse colon. The stump left behind was thick and infiltrated with blood, and near the splenic flexure the peritoneum covering the colon presented an ecchymosed appearance. The wound was closed, and the patient quickly got over the effect of the operation. A week later a dose of castor oil was followed by hæmorrhage from the bowel. The stitches were removed on Jan. 27th, and on Feb. 4th the patient left her bed. On the 27th slight phlebitis occurred in the calf of the right leg, and on March 5th the same occurred in the left calf. On the 8th she complained of abdominal pain, and the recurrence of ascites led to a further operation on the 13th. The abdomen was opened above the umbilicus and a large quantity of blood-stained fluid was evacuated. The gastro-hepatic omentum was found to be in the same condition as that noticed in the great omentum at the previous operation. It could not be removed, and as blood was freely oozing the bleeding area was packed with gauze and the incision was partly closed. Death occurred on the 14th from continued hæmorrhage into the abdomen.

Necropsy.—At the post-mortem examination the abdominal cavity was found to contain a considerable amount of blood-stained fluid. There were numerous adhesions between the colon, liver, and stomach. The liver contained several nodules of growth scattered over its under surface. In the left lobe was a large growth. There were nodules on the descending colon, small intestine, diaphragm, right parietal pleura, and in both lungs. The gastro-hepatic omentum was

of a reddish colour and much thickened. The uterus contained numerous fibroids. The other organs were healthy.

The omentum removed at the first operation was exhibited at a meeting of the Obstetrical Section of the Royal Society of Medicine on March 11th, 1909, and referred to the Pathological Committee for examination. The report was that it contained a malignant growth of a peritheliomatous nature.

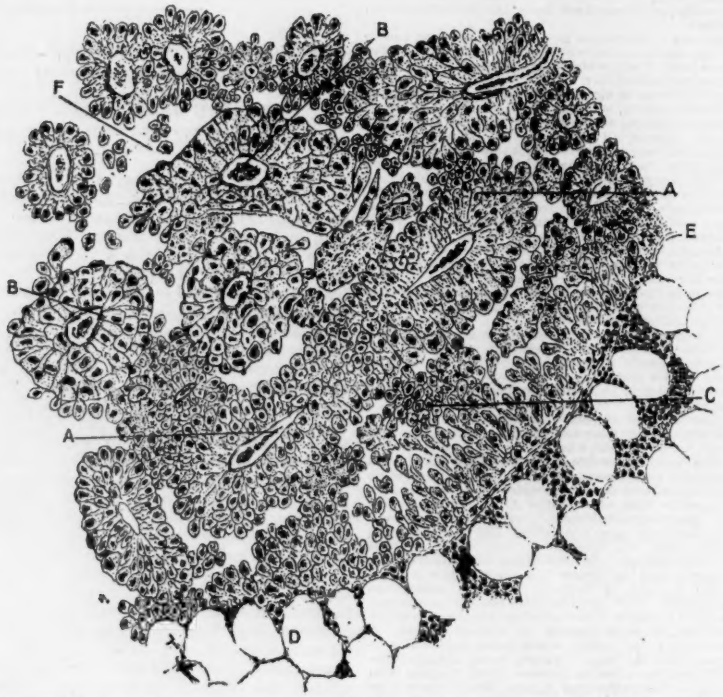
Remarks.—At the first operation I took the condition to be due to an accidental hæmorrhage into the great omentum caused by a strain. Acting under this impression, I showed the specimen at the before-mentioned meeting of the Obstetrical Section. No one present had seen anything like it, and it was not suggested that a malignant growth was present. It was, however, decided to submit the specimen to the Pathological Committee of the section. Before the committee met the patient underwent the second operation, and a post-mortem examination had revealed the secondary growths.

Primary sarcoma of the great omentum appears to be a very rare disease—in fact, text-books contain very little information on diseases and injuries of the omentum.

Dr. Farrar Cobb of Boston, Massachusetts, has reported a very similar case.[1] In his case the diagnosis was intestinal obstruction from malignant disease in the large intestine, presumably the sigmoid flexure. When the abdomen was opened bloody fluid gushed out, and a large, flat, spongy hæmorrhagic tumour presented itself in the wound. The incision was enlarged, and it became evident that the whole of the great omentum was much thickened and infiltrated with blood, its appearance being like that of a red bath sponge about one inch thick. A piece of omentum was excised, and nothing further was done. The patient lived for five weeks after the operation. The pathological report was: "A small piece of hæmorrhagic, necrotic-looking tissue, which was found to be composed of a solid mass of large round cells of varying size, among which were many mitotic figures. The blood-vessels were simply spaces hollowed out in the cellular growth. Large round-celled sarcoma." Dr. Cobb says:—

> The number of cases reported that have been accurately studied is very few, yet certain statements can be made as to the constant diagnostic symptoms and signs. There is no conclusive sign other than a palpable, flat, moveable tumour with or without signs of fluid in the abdominal cavity. From a study of the few similar cases reported, the symptoms and signs vary within wide limits, yet are mostly suggestive of chronic intestinal obstruction. In nearly all the onset of the disease was so slow that the tumour was felt as a flat or vaguely rounded mass before abdominal distension and constipation became extreme.
>
> In the majority of cases there is a long period of gastric symptoms, with malaise, loss of weight, vomiting, increasing constipation, alternating with diarrhœa and vague abdominal pain; then a tumour is felt in mid-abdomen, often a year or two before death. Fluid is then detected. In two cases bloody or dark stools are mentioned as having been seen.

When we consider my case, which was of the same nature as that recorded by Dr. Cobb, we must notice the absence of symptoms on which to found a diagnosis. There was dyspepsia for three months, then a distinct history of a strain which may have started bleeding from the omentum, already the seat of a malignant growth, followed by the comparatively early effusion into the peritoneum. No tumour could ever be felt through the thick abdominal wall. The patient did not lose flesh and was able to work until the day before the first operation. The condition of the omentum—soft, red, and oozing when touched, apparently infiltrated with blood—did not suggest a growth. This resemblance to a flat sponge full of blood I had never read of, and therefore did not recognise. The case ran an unusually rapid course, but the end was probably hastened by the operation, as relief of pressure allowed free oozing of blood from the growth.



AA, Vessel cut longitudinally. BB, Vessel cut transversely. C, Closely packed masses of cells. D, Fat, infiltrated in places by darkly staining small round cells. E, Mesentery. F, Small isolated groups of cells.

The drawing of the microscopical appearance of the growth, for which I am extremely indebted to Dr. G. Harvey Goldsmith of Bedford, shows the typical radial arrangement of cells around the lumen of the blood-vessels. The omental fat is in places infiltrated with small round cells with darkly stained nuclei.

I can find very few references to perithelioma. Adami[2]

[1] Annals of Surgery, 1906, vol. xliv., p. 16.

[2] Principles of Pathology, vol. i., p. 758.

says "that it is a striking form of tumour exhibiting capillary channels cut in various directions and lined by recognisable endothelium, around each of which capillaries is a collection of cells, many layers deep, arranged radially. The general opinion is that these cells gain their origin from the lymphoid endothelium of the perivascular space, that thus these tumours form one variety of lymphangio-endothelioma."

Bland-Sutton[3] has published an illustration of a case, and says that perithelioma is a sub-variety of the endotheliomata. Osler and McCrae[4] mention, amongst primary malignant tumours of the peritoneum, the occurrence of perithelioma (angio-sarcoma). They state that in some endotheliomata the microscopic appearances are confusing, in some parts resembling sarcoma and in others carcinoma.

Bedford.

THE RELATION OF ACUTE PHOSPHORUS POISONING TO ACIDOSIS.

BY H. LETHEBY TIDY, M.A., M.B. OXON., M.R.C.P. LOND.,

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IN this article I wish to emphasise the connexion of the secondary stage of acute phosphorus poisoning with acidosis. A distinction can be drawn between acidosis and acute acid intoxication, but this will not be discussed. The symptoms of acute phosphorus poisoning may be given briefly as follows:—

1. *Primary symptoms.*—Immediately on swallowing there is a disagreeable taste of garlic. Before the onset of symptoms there is a latent period with a duration of a quarter of an hour to upwards of two hours. Vomiting, with garlicky eructations, then commences. The vomit may be luminous. Purging usually occurs. There is no pyrexia. The usual symptoms of gastro-enteritis are present, and collapse and death may follow in a few hours from cardiac failure. If this rapid termination does not occur, the vomiting and purging subside, and about the third day the patient appears to be on the high road to recovery. There are cases on record in which the primary stage has been absent or very slight.

2. *Secondary symptoms.*—About the fourth day a fresh train of symptoms appear, the similarity of which to those of acute yellow atrophy of the liver has long been noticed. Vomiting is frequent. There is intense thirst. The pulse becomes small and feeble. Jaundice is early visible. In a short time the liver enlarges and is often extremely painful. This enlargement may, however, be absent. A tendency to hæmorrhage is present. The urine becomes scanty, and usually contains acetone and diacetic acid. Leucin and tyrosin may be present. There is great weakness, and delirium and loss of consciousness precede death, which in this stage is almost invariable.

Post-mortem examination.—When death occurs in the primary stage the stomach and intestines show signs of inflammation, and ulceration may be found. A peculiar smell is noticed and the contents of the stomach may be luminous, or even the whole body. No other changes are generally present which can be ascribed to phosphorus. No sign of phosphorus is usually found in the body on analysis when death has occurred more than three days after taking the poison. When death has occurred in the secondary stage all tissues of the body show extreme fatty degeneration. The liver shows changes similar to those found in acute yellow atrophy. It may, however, be enlarged. Leucin and tyrosin can be obtained from it. The stomach and intestines show but slight change beyond fatty degeneration. Hæmorrhages and petechiæ are common, as in all cases of advanced jaundice.

Nature of the secondary symptoms.—The primary symptoms may be ascribed to the irritant action of phosphorus and will not be further referred to. The secondary symptoms are not uncommonly stated to be a "recurrence" of the primary stage. The vomiting which occurs at the beginning of both stages may have established this view. The most prominent secondary symptoms are vomiting, epigastric pain, thirst, jaundice, and the presence of acetone and diacetic acid in the urine.

From a consideration of these in association with the post-mortem appearances the condition can be attributed to acidosis, of which the phosphorus is either the cause or the *causa causans*. It may be noted that diabetic coma is ushered in by epigastric pain, anorexia, and nausea. There is a marked similarity between delayed chloroform poisoning and the secondary stage of phosphorus poisoning. Thus there is a period of several days before the onset, and the symptoms and post-mortem appearances are similar. For these reasons one is justified in attributing the two conditions to a similar pathological state of the tissues, and we may classify together the second stage of phosphorus poisoning, acute yellow atrophy, delayed chloroform poisoning, the toxæmic vomiting of pregnancy, and other conditions undoubtedly associated with acidosis.

The action of phosphorus.—The toxic powers of phosphorus were formerly considered to be due to the withdrawal of oxygen from the tissues. The amount of oxygen necessary to oxidise a fatal dose is, however, very small, and this view is no longer held. The result of the process of oxidation is the important point. Phosphoric acid is very powerful and is nearly as strong as hydrochloric acid. The oxidation of phosphorus after absorption would result in the presence of this acid in the blood and tissues. Hutchison found that sodium di-hydrogen phosphate was the most powerful practical drug for acidifying the urine. I have been unable to find any instance of poisoning with phosphoric acid or symptoms resulting from an overdose.

Treatment of the secondary stage of phosphorus poisoning.—The measures employed in treatment of acidosis should be adopted. The injection of normal saline solution and the administration of alkalies should be commenced as soon as the vomiting and purging of the primary stage subside.

The presence of excess of acids in the tissues in the later stages of phosphorus poisoning has, of course, been previously noticed. Thus Meyer found the alkalinity of the blood to be diminished, and ascribed this to the excess of lactic acid in the body resulting from insufficient oxidation. Munzer in 1891 and 1892 examined the urine in ten cases of acute phosphorus poisoning, and found a high percentage of ammonia-nitrogen. In two cases he gave sodium bicarbonate and noted the reduction in this percentage, as must, of course, necessarily occur. The treatment was apparently tried for experimental purposes, in order to observe its effect on the excretion of ammonia. It was not persisted with, nor was it employed in a subsequent case. This was before much attention had been given to acidosis. Possibly other cases have been treated with alkalies, but I have not been able to find any record of such.

A close connexion between poisoning by phosphorus and arsenic is often assumed to exist. In acute arsenical poisoning there is no occurrence of a secondary stage, and post mortem no changes are found in the liver resembling acute yellow atrophy or phosphorus poisoning. There is no evidence that fatty degeneration occurs to any extent, except in the alimentary canal, in cases of uncomplicated poisoning with arsenic. Thus there is no reason to believe that acute arsenical poisoning has any relation to acidosis, and no evidence that chronic forms are connected with it.

Harley-street, W.

[3] Cancer Clinically Considered, p. 20.
[4] System of Medicine, vol. v., p. 591.

NOTE ON A CASE OF DIGITALIS HEART-BLOCK.

BY E. E. LASLETT, M.D. VICT., B.SC. LOND.

FROM experimental work it is well known that digitalis depresses conductivity in heart muscle. The demonstration of this effect in man is due to Mackenzie.[1] It is occasionally noticed that after digitalis has been administered for some days the pulse becomes irregular and shows intermissions. The intermissions have been shown to be due to the falling out of ventricular contractions owing to the failure of conduction of the stimulus from the auricle. Mackenzie states that this action of digitalis is obtained only when there is already some delay in conduction (which may be only slight) as shown by a lengthening of the *a.-c.* interval in the jugular venous pulse. This occurs particularly in subjects who have

[1] Deutsche Medizinische Wochenshrift, 1904, No. 24.

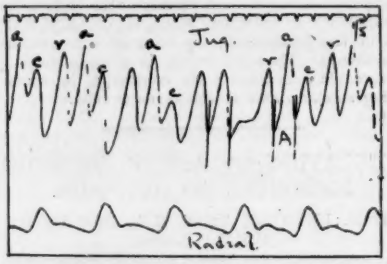
had rheumatic fever. In patients with normal conductivity and intact *a.-v.* bundle digitalis remains without effect on the conductivity. This difference from experimental results is probably due to the fact that the amount of digitalis given to human beings is comparatively small, and its exhibition cannot be pushed beyond a certain stage by reason of its irritating effect on the alimentary canal.

It is not yet precisely known in what way digitalis acts on the function of conductivity in heart muscle, whether through the medium of the vagus nerve or directly on the muscle fibre itself. It undoubtedly produces one of its effects by its action on the inhibitory centre. It is in this way that it is able to diminish the frequency of the heart-beat. Mackenzie [2] reports a notable case of mitral stenosis in which digitalis, besides slowing the heart in the usual way, produced very long pauses—on one occasion for nearly four seconds—in which the whole heart was arrested. In this case, although there was damage to the *a.-v.* bundle and delayed conductivity, this was not further affected by the action of digitalis; in fact, the *a.-c.* interval was diminished after the long pauses.

I have had under my care a patient in whom I produced partial heart-block by the administration of digitalin, and certain observations made during this period tend to show that in this case at least the heart-block was produced through the medium of the vagus nerve and not by direct action on the muscle. The patient was a woman, aged 40 years, who had mitral regurgitation as a result probably of an attack of rheumatic fever at the age of 20. The lesion appeared to be fairly well compensated, but there were attacks of violent palpitation. There was some degree of anæmia, and probably as a result partly of this and partly of the valvular lesion the field of cardiac response was somewhat limited. A jugular venous tracing taken in October, 1908, showed a large auricular wave indicating, perhaps, some loss of cardiac tone. The *a.-c.* interval at this time was slightly more than one-fifth of a second, with a pulse-rate of about 75 per minute (Fig. 1). There was thus a slight delay in conductivity. Digitalin granules were prescribed, one to be taken twice daily. No particular effect was noted until the eleventh day, when it was found that the pulse was intermittent, a beat being dropped after every second or third period, usually after every second. It will be seen from Fig. 2 that there is a gradual lengthening of the *a.-c.* interval until conduction fails altogether and a ventricular contraction falls out (Fig. 2). If now the patient swallowed once there were four normal pulse periods before an intermission occurred. If two or possibly three swallowing acts were performed in quick succession the intermissions temporarily disappeared. The pulse remained regular for nine periods of a slightly increased frequency (a rise from 75 to 82 per minute). Then two intermissions occurred in succession, and the previous rhythm was resumed. The appearance of two intermissions in succession (a 2:1 rhythm) was also noticed on several occasions after a single swallowing act. The venous tracing (Fig. 3) is somewhat marred by the muscular movements, but it shows fairly clearly that during the period of increased frequency caused by swallowing, conductivity is somewhat improved, as shown by the *a.-c.* interval, and that it is not until just at the end of the period that the interval lengthens and then the intermissions follow.

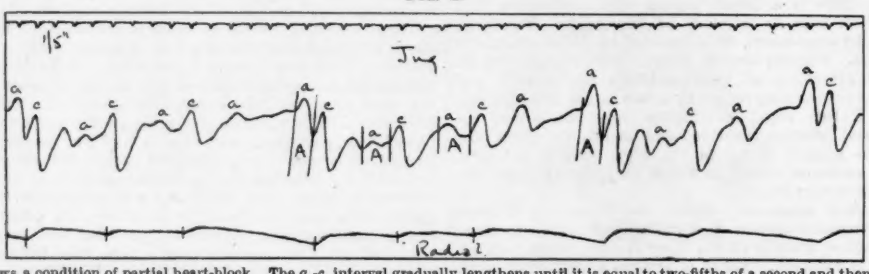
Such a result seems to indicate that in depressing conductivity in the *a.-v.* bundle the digitalin is acting through the medium of the vagus nerve. It is well known that sipping quickens the heart beat, probably by a reflex diminution of vagal tone. Hence it would seem that the depression of conductivity, and consequent dropping out of ventricular contractions, is dependent upon increased vagus tone due to

FIG. 1.



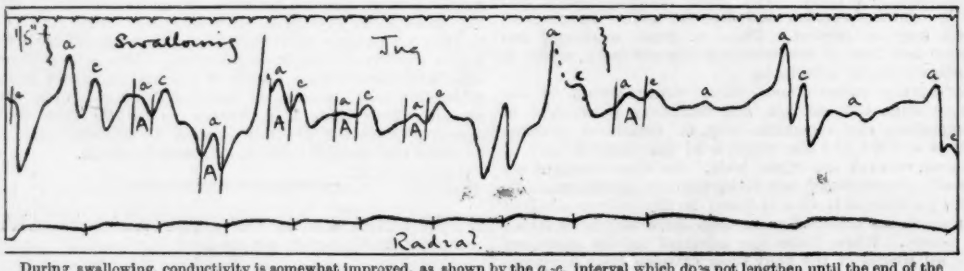
The normal venous pulse. The *a.-c.* interval is slightly more than one-fifth second.

FIG. 2.



Shows a condition of partial heart-block. The *a.-c.* interval gradually lengthens until it is equal to two-fifths of a second and then the ventricular contraction falls.

FIG. 3.



During swallowing, conductivity is somewhat improved, as shown by the *a.-c.* interval which does not lengthen until the end of the period of increased frequency.

[2] Diseases of the Heart (London, 1908), p. 342.

the action of digitalin. Indeed, if the action in this case were really on the muscle fibres themselves one would expect that an increased auricular rate would lead to an increased grade of heart-block because the conducting fibres would then have less time to recover than before. The occurrence of a temporary 2 : 1 rhythm after both a single and successive swallowing acts is of importance. It indicates a temporary depression of conductivity to a greater degree than before, and must be due to a subsequent increased vagal tone.

Mackenzie [3] has published the case of a man with mitral and tricuspid murmurs, in whom there was a depression of the function of conductivity. In this patient digitalin produced mild heart-block. A few days after the digitalin was withdrawn the pulse became regular, but swallowing caused ventricular silences after three normal beats. This condition continued for a week. Mackenzie believes that it arose through reflex stimulation of the vagus nerve, and from the analogy between the effects of digitalin and swallowing it indicates that the drug acts through the medium of the inhibitory centre and not directly on the heart muscle. I have tracings taken from an anæmic woman in whom I was able to produce partial heart-block by tincture of digitalis. In this case a day or two after the drug was withdrawn, and when the pulse had become regular, two or three swallowing acts performed in succession caused the pulse to intermit, but only after a temporary increase of rate. A single act of swallowing was inefficient. There was no history of rheumatism, and the peculiar sensitiveness of the heart to the action of digitalis may have been due to malnutrition. Since that time, although there has been little general improvement in the patient, I have never again been able to produce heart-block.

Hull.

THE TECHNIQUE OF INTRAVENOUS INJECTION OF EHRLICH-HATA PREPARATION "606."

BY OTTO GRÜNBAUM, M.D. CANTAB., D.SC. LOND., F.R.C.P. LOND.,

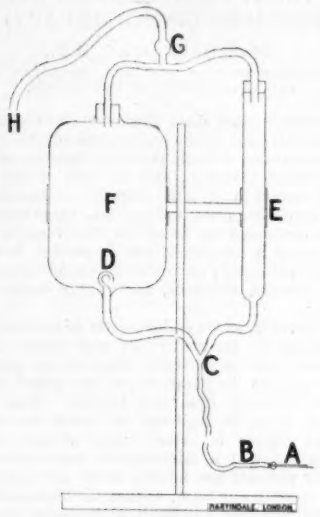
ASSISTANT PHYSICIAN TO THE LONDON HOSPITAL, ETC.

THROUGH the kindness of Professor Ehrlich I have been afforded opportunity of studying the effects of the preparation "606." My interest lies in diseases produced by the spirochæta pallida other than chancres and skin lesions, and it is chiefly to cases suffering from disease of the central nervous system that I have administered the drug. Professor Ehrlich's warning must be obeyed, and only very early cases treated. It is not my intention to take this opportunity of recording my results, but to give details of one of the methods of introducing the preparation into the body. My experience was similar to that of other observers, in that neurasthenic patients complained of pain for many weeks after the injection when this was made into the gluteal muscles. This was one of the reasons for my adopting intravenous administration of the drug which is painless.

The apparatus which I have used consists of a transfusion needle (A), connected by a short piece of rubber tubing to a piece of glass tubing (B), this in turn by a long piece of tubing to a three-way tube (C). An ordinary clip is placed between B and C. The other arms of the three-way tube are connected to the two vessels (E and F). F is of 400 c.c. capacity and should be calibrated. The outlet from the lower end of the vessel (F) should be similar to that in the diagram, in order that any small heavy particles, such as minute fragments of glass, cannot pass out of it. This, it is true, leads to the waste of a few cubic centimetres of the solution; in the apparatus I use this amounts to three cubic centimetres. E is a smaller narrower vessel. Clips are placed between C and F, and between C and E. The vessels are closed above by rubber corks, through which tubes pass to connect to the three-way tube (G). In G there is a filter of cotton-wool, and from it passes a tube connected to small hand-bellows. The object of this somewhat complicated apparatus is to permit of the injection of a small quantity of normal saline solution first, in order to be certain that the needle is in the vein.

[3] Brit. Med. Jour., 1906, vol. ii., p. 1110.

The details are as follows. The whole apparatus, including tubes, &c., is boiled. On removing it from the steriliser the vessels are corked and clips are placed upon the tubes, and the apparatus is kept until wanted. Hot normal saline solution is poured into the vessels. Clips C D and C E are removed, and the needle (A) is held as high up as the tubing will permit. Clip C B is removed, and the needle is



gradually lowered until saline solution runs through it; all the clips are then fixed. This ensures the tubes being emptied of air. In spite of this it is advisable to keep an eye on B during the injection, and to stop it should any bubble of air appear.

The solution is then prepared: the outside of a tube of "606" is sterilised after having notched it with a file. The contents are shaken into a sterile stoppered bottle of 60 c.c. capacity. If the contents of the tube appear to have formed into granules, and do not present the appearance of a fine yellow powder, it will probably prove to be useless for intravenous injection. The powder is dissolved in 20 c.c. of warm sterile distilled water. When solution is complete a half-normal solution of pure sodium hydrate is added drop by drop. A precipitate is thrown down, which dissolves on the addition of more sodium hydrate. However carefully the soda solution is added, the resulting solution is more alkaline than absolutely necessary. A sterile 10 per cent. solution of glacial acetic acid is added until a faint haze appears, and then a drop or two of a sterile tenth-normal solution of sodium hydrate until the solution is quite clear.

This solution is poured into the vessel F, in which there is not less than 250 c.c. of normal saline solution. All solutions should be made with distilled water; this, of course, applies to the normal saline solution. Occasionally on pouring the solution into the saline solution a cloudiness appears, which may disappear on the addition of a drop of the dilute sodium hydrate solution. If the precipitate persists the solution is useless and must not be used.

The skin of the patient in the region of the bend of the elbow is purified, and a bandage is passed once round the upper arm and twisted tight. When the veins are distended the needle is passed into one of them and the bandage removed immediately. Clips C E and B C are removed, and then the level of the fluid in E is seen to fall. If there be no swelling in the region of the point of the needle it is obvious that the needle is in the vein, and the injection of the drug may be proceeded with. Clip C E is fixed, and clip C D is removed. If the flow is too slow the air pressure in F may be slightly increased by compressing the hand bellows once or twice. When the vessel is almost empty clip C D is fixed, and clip C E is removed in order to wash out the vein with normal saline solution. The needle is removed, and the puncture is dressed with collodion and gauze.

The patient should remain quiet in bed for 24 hours.

During this time vomiting and diarrhœa may occur, but usually are of short duration. The patient is able to return to work 48 hours after the injection.

Portland-place, W.

RAW MEAT AND RAW MEAT JUICE IN THE TREATMENT OF CONSUMPTIVE DISEASES (ZOMOTHERAPY).

BY J. HERICOURT, M.D.,

MEDICAL SUPERINTENDENT OF THE PARIS MUNICIPAL ANTI-TUBERCULOUS DISPENSARY AT JOUYE-TANIÈS.

IT is now some years since Professor Ch. Richet and the writer called attention to the remarkable effects of a diet of raw meat in enabling animals that had been inoculated with tubercle to resist infection, and in spite of the technical difficulties inherent in the administration of raw meat in any form to human beings the method has been tried and our conclusions confirmed by numerous observers; in fact, raw meat has become a recognised and important factor in the treatment of pulmonary and other forms of tuberculosis, as well as in anæmia, chlorosis, and similar states of *misère physiologique*.

As soon, however, as we endeavour to administer raw meat to human beings we are confronted with various difficulties, for the meat must be perfectly fresh or the pulp will be offensive, and the preparation of the pulp entails the expenditure of much time and trouble. Then, too, the amount that must be ingested in order to obtain the therapeutical effects is rather large, though satisfactory results have followed a minimum of half-a-pound a day. Lastly, many patients are unable, or at any rate unwilling, to take raw meat in any form, so that the treatment becomes inapplicable; moreover, the habitual ingestion of raw meat entails a certain liability to tænia, although, as a matter of fact, the risk is small, and if the worst comes to the worst the parasite is easily dislodged.

Subsequent researches, undertaken in conjunction with Professor Richet for the purpose of ascertaining which was the active constituent in muscle tissue, showed the specific elements to be contained exclusively in the muscle juice. We found, for example, that the solid components of flesh had no therapeutical action; indeed, tuberculised animals fed on flesh from which the muscle plasma had been expressed died in approximately the same lapse of time as the control animals, whereas the administration of the expressed juice to similarly tuberculised animals prevented infection taking place, for not only did they not fall ill, but they remained in particularly robust health, there being a substantial increase in weight after an interval of several weeks. Moreover, when the muscle juice was given to animals actually under the empire of tuberculous infection the emaciation ceased and they were restored to health, while the control animals died. It is obvious, therefore, that the efficacy of raw meat resides in the muscle serum—i.e., the meat juice—and it is equally clear that the effects are in no wise due to mere overfeeding because the proportion of nitrogen contained in 1000 grammes of muscle plasma only amounts to 4 grammes, roughly corresponding to 25 grammes of albuminoids. It follows that the recovery of dogs fed on a daily allowance of from 50 to 100 cubic centimetres of muscle juice could not be due to hyperalimentation, since by far the greater part of the nutritive principles remained in the expressed meat which proved unavailing in any quantity to prevent, or even delay, the fatal termination. To this method of treatment, based on the administration of raw meat juice as a remedial agent rather than as a food, we applied the name *zomotherapy*, from Ζωμός, meat juice.

Cooking destroys the organic principles to which the action of raw meat is due, and forced feeding with cooked meat has no action in delaying the course of the infection. This must be clearly borne in mind, because the various products described as "liquid meat," "meat juice," "meat extracts," &c., are all prepared from cooked meat, and, however valuable as foods, possess none of the therapeutical properties which we have shown to be inherent to raw meat.

A further advantage attending the use of raw meat juice is that it is free from the drawbacks which have been mentioned in connexion with the administration of the meat itself. The juice is easy to take and the amount to be ingested is comparatively small. Moreover, the taste is not unpleasant, is easily masked, and the risk of tænia is non-existent.

There remains, it is true, the technical difficulty of preparing raw meat juice economically and perfectly fresh. The first can be in great measure overcome by the employment of sufficiently powerful presses by means of which the proportion of expressed juice can be raised from 25 per cent. (which is the average yield with ordinary domestic presses) to 40 and even 50 per cent. There remains the difficulty of obtaining perfectly fresh meat, and this is one of the greatest importance, because meat juice is eminently unstable, so much so that its appearance changes within an hour of its separation, and it soon develops toxic properties which render it unfit for human consumption. To begin with, the juice must be expressed as soon as possible after the animal has been slaughtered—two or three hours in summer and four hours in winter. Then, too, the juice must be collected in a vessel surrounded by ice and consumed as soon as possible. No doubt these requirements make the treatment a troublesome one, and it is also somewhat expensive, but *qui veut la fin veut les moyens*, and its efficacy is such that it is very largely employed.

Our original researches were undertaken for the purpose of discovering a means of arresting tuberculosis, and the experimental and clinical results of the employment of *raw* meat and *raw* meat juice are as constant as they are remarkable. It is probably no exaggeration to say that the raw meat treatment of pulmonary phthisis yields results not approached by any other means at present available. Nevertheless, the benefits of zomotherapy are by no means limited to tuberculosis. Raw meat juice is of the greatest service in the various forms of anæmia and chlorosis, in typhoid fever, neurasthenia, rickets, and scurvy rickets, during convalescence, after hæmorrhage—in fact, whenever it is desired to reinforce the defensive apparatus of the organism and repair the ravages of disease.

There is, of course, no reason why the administration of raw meat pulp as a highly nutritious and digestible food should not be associated with the therapeutical employment of a muscle plasma; indeed, by adopting this plan we obtain the maximum advantages attending this method of treatment. It must, however, be borne in mind that to be efficacious the zomotherapeutic treatment entails the daily ingestion of at least the amount of muscle juice contained in 300 grammes of beef in mild cases and of 500 grammes and upwards in bad cases. Smaller quantities are no doubt productive of benefit, but cannot be relied upon to yield characteristic results. The inconclusive results reported here and there have been due to neglect of this cardinal principle, though it is only fair to add that one does meet with a few cases, usually those associated with secondary infections, which prove refractory.

The employment of raw meat juice for therapeutical purposes is based on purely empirical data, and we are not in a position to offer any scientific explanation of its action. At the time when we carried out our early experiments the theory of antitoxins had just been elaborated, and naturally enough the quasi-specific action of muscle plasma in tuberculosis was attributed to the presence of some antitoxic substance. Bearing on this hypothesis is the fact that tuberculosis never invades muscle fibre, and the well-marked muscular atrophy that occurs in phthisical subjects suggests the possibility of the muscles having been sacrificed in the defence of the organism. On the other hand, the presence in the raw juice of enzymes, ferments, and diastases which play such an important part in nutrition and in the struggle against infections may conceivably account for the activity of muscle plasma. It may be, of course, that muscle juice acts merely as a special stimulant of the nervous system. The slight but quite characteristic exhilaration that follows the ingestion of somewhat large amounts of muscle plasma militates in favour of the theory of nervous stimulation, and the good effects of zomotherapy in affections other than tuberculosis, neurasthenia, for instance, admits of a similar explanation.

Dr. Henry Percy Potter, medical superintendent of the Kensington Infirmary, has been presented by the staff with a silver coffee service on the completion of 30 years of office

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON A CASE OF MUMPS IN WHICH ATTACKS OF EPIDIDYMITIS OCCURRED ON EACH SIDE IN TURN, EACH ATTACK BEING ACCOMPANIED BY SYMPTOMS PROFOUNDLY INVOLVING THE NERVOUS SYSTEM.

BY SIDNEY PHILLIPS, M.D. LOND., F.R.C.P. LOND.,
SENIOR PHYSICIAN, ST. MARY'S HOSPITAL AND LONDON FEVER HOSPITAL; PHYSICIAN, LOCK HOSPITAL.

A MAN, aged 23 years, an army officer, was attacked by mumps in March, 1905. The left parotid gland was affected, and while the pain and swelling in it were subsiding the left epididymis became painful and enlarged. At the same time there was a rigor, the temperature rising to 104° F., and the patient became violently delirious, shouting and endeavouring to get out of bed. I saw him the next day; the delirium had passed off, but he had lapsed into a condition of deep stupor, seemingly quite deaf. He was not quite unconscious, showing signs of irritability when efforts were made to rouse him. There was retention of urine. His pulse was very rapid and small, his breathing laboured. The tongue and lips were very dry, and his breath was horribly fœtid. The skin was clammy; the extremities were cold; the temperature was 103°, but he seemed much collapsed.

The family were naturally alarmed, but remembering Trousseau's description of somewhat similar cases I was able to reassure his father—a medical man. The patient was given some calomel and a hypodermic injection of strychnine. On the next day he was better and he continued to improve. But five days later I was called again to see him for a recurrence of the symptoms. The right parotid had swelled up and his delirium, fever, and tendency to stupor had returned. I found that the right epididymis had now begun to be swelled and painful. After a few days all his symptoms lessened and he eventually got quite well.

Remarks.—Trousseau[1] narrates two cases illustrating the alarming symptoms which may accompany epididymitis following on mumps—one of a man, aged 35 years, who with the onset of the epididymitis became alarmingly ill, "with a countenance of inexpressible anxiety, face pale and pinched, pulse small, rapid, and irregular, and extremities cold"; the second case was that of a youth, aged 17 years, who was seized with acute symptoms "resembling those of the bad days in the third week of putrid fever." Trousseau also alludes to cases previously recorded by Boisieri.

My friend Mr. Mitchell showed me his notes of his case, and I have thought the record of my case might be of interest side by side with his. They both exemplify the very severe nervous disturbances which may arise with epididymitis after mumps. In his case an additional point of interest was the occurrence of epididymitis in an undescended testis; and in my case there was noteworthy: (1) the involvement of each epididymis in turn, on the same side as the parotid was affected; and (2) the separate attacks of delirium and stupor concurrently with each attack of epididymitis.

Upper Brook-street, W.

A CASE OF ACUTE ORCHITIS OCCURRING IN AN UNDESCENDED TESTIS AFTER AN ATTACK OF EPIDEMIC PAROTITIS, AND ASSOCIATED WITH ACUTE DELIRIUM.

BY W. S. MITCHELL, M.R.C.S. ENG., L.R.C.P. LOND.,
LATE ACTING GOVERNMENT MEDICAL OFFICER, GRENADA, B.W.I.

WHILE acting as medical officer of No. 2 District in Grenada, British West Indies, I was called up one night to sign up a patient who was supposed to have gone mad. The patient, a negro labourer, aged about 33 years, was in an acutely maniacal condition. He was lying in bed, restrained by three powerful men. I had the greatest difficulty in approaching him, as he bit, fought, and spat at me in a most terrifying manner. The only history I could obtain from his friends was that he had been in that condition for three days, previous to which he was apparently quite well, except for an "attack of the mumps" the week before, and that he had a "little fever." He had followed his usual occupation, which was of an extremely arduous nature. He had vomited once the previous day, and his bowels were "fairly regular," but he was dirty in his habits. He declined to take any nourishment. I found it impossible to approach him for some time, and owing to his extreme violence the hovel was in great danger of collapsing upon us, as it began to sway to and fro in a most ominous and threatening manner. After about an hour he quieted down a little, and I found his pulse was rapid but regular, and of moderate tension. The temperature in the axilla was 104° F. The lips were tremulous and dry, the eyes were bright and staring, and the pupils were dilated but reacting to light. The patient would not speak or put out his tongue. The heart was dilated and the lungs were normal. The abdomen was flat. The spleen was not enlarged. The left rectus was rigid and some tenderness was present on pressure below and to the left of the umbilicus. The right rectus was quite flaccid. Nothing could be felt in the left inguinal canal, but the patient resented this examination most forcibly, whereas he did not object to the right canal being examined. There was no discharge from the penis. On examination of the scrotum I found that the left testicle was undescended and could not be felt; the right was present and normal. The latter part of the examination was carried out under great difficulty, owing to the pugilistic efforts of the patient.

Morphia (½ grain) was administered hypodermically, and this quietened the patient, so that it was found possible to get him to take a little milk, in which was a powder consisting of calomel, gr. v., and pulv. jalap co., ℥ss. Hot poultices were ordered to the abdomen. On my visit the next day the patient was very much better, and no longer needed restraining. He told me he had some pain in the lower part of his abdomen, and that his memory was "not too good," but otherwise he felt fairly well. His temperature was 100°, the pulse 110, and his tongue was dry and furred. The left rectus was less rigid, but there was still tenderness on examination of the left canal. The patient could give no history of any injury. The hot poultices were continued, and a quinine mixture was ordered. His diet consisted of milk and eggs. On the fourth day I found the patient walking about in front of his hut, apparently in the best of health, and he informed me he intended turning out to work on the following day. I subsequently made inquiries and was told that he did go out to work, and that he had since enjoyed good health.

Remarks.—There are several points of interest in this case. The occurrence of orchitis in mumps is a well-recognised complication, but for the condition to occur in an undescended testicle must be almost unique. It will be noted that there was an interval of about a week between the parotid affection and the testicular complaint; this is in accordance with the usual sequence of events when the testis is affected. This interval rendered the diagnosis less obvious in the case under consideration. The fever, severe pain, rigidity of the left side of the abdomen, and vomiting might readily have led to the diagnosis of some acute inflammatory affection of the abdomen if the position of the testis and the history of the illness had not been taken into consideration. This rare condition must therefore be added to the list of affections requiring differential diagnosis in cases presenting acute abdominal symptoms. The occurrence of delirium in mumps is an occasional happening, but acute mania following the disease must be excessively rare. As far as the writer knows only one case has previously been recorded (that is, the one referred to in Osler and Macrae's "System of Medicine"). The swelling and pain in the testicle when affected in mumps usually last four or five days. In this case the patient was quite well within a week from the onset of the acute symptoms.

Grenada, British West Indies.

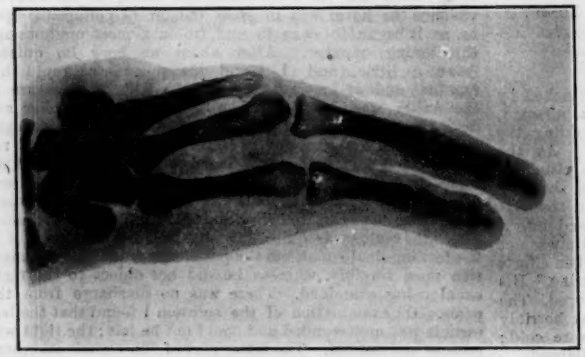
[1] Lectures on Clinical Medicine, Sydenham Society's Transactions, vol. ii., p. 277.

CLOVEN FEET AND HANDS.

BY JOHN BELL, M.R.C.S. ENG., L.R.C.P. LOND., D.P.H.,
SUPERINTENDENT, GOVERNMENT CIVIL HOSPITAL, HONG-KONG.

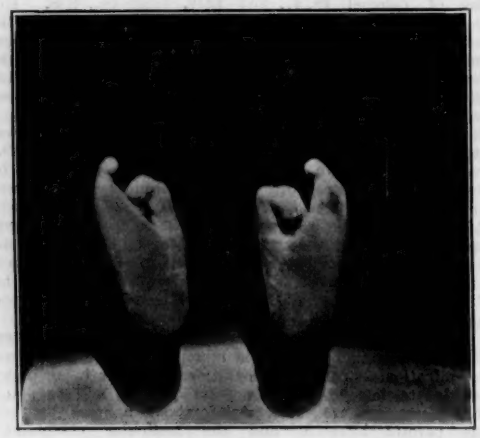
THE accompanying pictures illustrate what I believe to be a rare congenital malformation, and they may therefore be of interest. The subject was a Chinaman, aged 26, who was sent to us at the Civil Hospital, Hong-Kong, as a curiosity. Except for his hands and feet he was normal in all ways, and, indeed, a good specimen of his class. No family history as to similar or other deformities could be obtained. He was able to use his chopsticks between his fingers in a most dexterous manner.

FIG. 1.



Reproduction of skiagram of right hand; the skiagram of the left hand showed similar deformity.

FIG. 2.



Reproduction of photograph of feet, the hooked halluces bein very marked.

Hong-Kong.

THE TREATMENT OF BASIC MENINGITIS BY THE INUNCTION OF IODOFORM OINTMENT.

BY HAROLD MOWAT, M.D. EDIN.

I WAS interested in reading up the subject of meningitis to find a reference in THE LANCET of Sept. 30th, 1905, by Mr. H. C. Wilson to the value of inunction of iodoform ointment into the neck in a case of tubercular meningitis. The writer claimed that he had treated a case of this deadly disease successfully by this means, and, while admitting that the diagnosis of "tubercular" might possibly be incorrect, stated that all the symptoms of the case pointed to such an origin. It occurred to me that it would be useful to try the inunction in cases of ordinary basic meningitis of the toxæmic variety, as our ordinary remedies have never proved very efficacious, the mortality from the disease being extremely high. Within the last few months I have been successful in two cases, and believe that the satisfactory results were largely due to the inunction.

The first case was that of a boy, aged 9 years, who contracted measles. When the rash had disappeared a temperature of 103° F. remained, and the boy complained of severe frontal headache and stiffness of the neck. His neighbours were kept awake during the night by his shrieks, which were of the typical meningeal type. These passed off in two days and were replaced by constant moaning. He took no notice of his surroundings, except when sharply spoken to, when he replied to questions in a dazed fashion. He was very sick. *Tache cérébrale* was well marked, the muscles of the neck were rigid, while Kernig's sign was also present. As soon as I was told of the screaming I suspected the onset of meningitis and made up an ointment containing 15 grains of iodoform to the ounce of vaseline, which I instructed the parents to rub thoroughly into the back of his neck and posterior part of his scalp night and morning. I also gave him small doses of potassium iodide and bromide. Within the week his symptoms were greatly relieved and his temperature had fallen. Since then he has been in perfectly normal health.

The second case was that of a girl 3 years old, whom I treated quite recently. She was taken ill with severe diarrhœa and vomiting, attributable to the eating of a sausage on the previous day. Under treatment the diarrhœa soon disappeared but the sickness continued. She uttered the meningeal cry and afterwards moaned. She took no notice of anyone except when she was spoken to. Her temperature rose to 102° F. Her tongue was clean. *Tache cérébrale* was present. Kernig's sign was apparent on the fourth day. She squinted and showed marked extensor reflex of the big toes. On the sixth day she sank into a comatose state. I treated her in the same manner as the former case, but when the state of coma was reached I was compelled to tell her parents that I considered the case hopeless. On the eighth day she woke as from a natural sleep, spoke to her parents, and showed every sign of recovery. Since then she has had no relapse. Although I told her mother to apply the iodoform ointment twice a day she afterwards informed me that she had done so four times within each 24 hours.

Personally I have now a good deal of confidence in this method of treatment, and believe if it were more largely used our mortality from meningitis would be lessened.

Bromley-road, S.E.

A CASE OF FISTULA OF THE LACRYMAL SAC.

BY S. CHURCHILL, M.A., M.B., B.C. CANTAB.,
HOUSE SURGEON TO THE ROYAL ISLE OF WIGHT COUNTY HOSPITAL, RYDE; LATE HOUSE PHYSICIAN TO ST. THOMAS'S HOSPITAL, LONDON.

THE accompanying illustration shows a unilateral fistulous opening whereby the right lacrymal sac communicates with the exterior by a channel other than those afforded by the canaliculi and the naso-lacrymal canal.

The patient is a married woman, aged 26 years, who was sent to the ophthalmic department as a case of lacrymal obstruction. Mr. H. J. May examined her. He was unable to squeeze any mucus or pus from the sac through either punctum and asked me to confirm this by syringing the canaliculi. This I did and noticed that the fluid issued as a jet from the region of the lacrymal sac. At first I thought this was due to the presence of obstruction causing the fluid to return through the upper punctum. But on closer examination I found a minute opening in the skin over the lacrymal sac, skirted by a semilunar fold and admitting the point of a Nettleship's canaliculus dilator. A piece of

horse-hair pushed into the opening (as in illustration) passed for a length of 3 inches down into the nose. Fluid injected by either the upper or the lower canaliculus is partly voided from the nose and throat and partly from this opening.

Referring to J. H. Parsons's "Pathology of the Eye," vol. iii., Part I., p. 906, the following words on the subject of fistulæ occur: "They have been attributed to arrest of

development, and minimal failure of the fissura facialis to close (Harman). This may be true of some cases, but they are probably more often of inflammatory origin. There is usually blennorrhœa of the sac. Adler attributes the fistula to arrested development and the blennorrhœa to fœtal inflammation, an unnecessary complication." As there is no evidence in this case of blennorrhœa, I conclude that this is a presentation of the morphological variety.

Ryde.

Medical Societies.

UNITED SERVICES MEDICAL SOCIETY.

The Development of the Army Medical Service.—Pruritus Ani.

A MEETING of this society was held at the Royal Army Medical College on Dec. 14th, 1910, Surgeon-General W. BABTIE, V.C., C.M.G., being in the chair.

Lieutenant-Colonel M. W. H. RUSSELL, R.A.M.C., opened a discussion on Recent Tendencies in the Development of Army Medical Services. He pointed out that under modern conditions it had become impossible for wounded men to be removed from the fighting line till dark, or at any rate till there was a lull in the fire; the wounded at the front could only be collected in "nests" and treated by the regimental *personnel* till this happened, and so there was a general tendency in most armies to increase the efficiency of the regimental aid by improving training and increasing the regimental supply of appliances. He suggested that in our army the water *personnel* should be made available for regimental aid during action, since their duties in connexion with water were in abeyance at that time; also that we might well follow the example of Germany, France, and Austria in making the regimental bearers devote their whole time to their bearer duties, and thus become not only more efficient but entitled to the protection of the Geneva Cross. The speaker then discussed the uses and organisation of collecting stations for lightly wounded, which are established five or six miles behind the firing line, and which occupy themselves not only in attention to lightly wounded men, so relieving the dressing stations, but also in the care of those unfit to go into action and in the collection of improvised transport. Lastly, he drew attention to the very considerable changes in arrangements which were likely to follow the more extended use of mechanical transport in war.—Lieutenant-Colonel C. H. BURTCHAELL, R.A.M.C., thought it would be impossible to combine the duties of water men and first aid. He also thought it impracticable to send lightly wounded direct from the regiments to the collecting station; in the Japanese army these men passed through the dressing station.—Major C. F. WANHILL, R.A.M.C., protested against the diversion of water men from their legitimate duties.—Colonel A. PETERKIN, A.M.S., doubted if one collecting station for a division would be sufficient on account of the distance from the flanks.—Surgeon-General BABTIE called special attention to the alterations necessitated by the employment of mechanical transport.—Surgeon-General G. J. H. EVATT, A.M.S. (retired), Lieutenant-Colonel A. P. BLENKINSOP, R.A.M.C., and Lieutenant-Colonel H. D. ROWAN, R.A.M.C., also took part in the discussion.—Lieutenant-Colonel RUSSELL, in reply, pointed out that in action everything, even sanitation, must be subordinated to the defeat of the enemy, hence his recommendation to utilise the water men for first aid at this time. As the collecting station was five or six miles in the rear there was no need to duplicate these establishments.

Major W. E. MILES, R.A.M.C., T.F., read a paper on Pruritus Ani. He was of opinion that it should more properly be labelled "dermatitis ani." He considered that it was not of nerve origin since most cases yielded to local treatment, but that it usually arose in patients with a gouty or eczematous diathesis, and that of the exciting causes rectal constipation was the most prominent. Treatment consisted in local applications of hot water, sedative and astringent ointments and powders, and in the removal of the exciting cause, especially rectal constipation.

Major T. W. GIBBARD, R.A.M.C., showed a case of Extensive Syphilitic Ulceration of the Head and Face which had resisted the usual treatment but which healed promptly after injection of "606." The demonstration was accompanied by photographs of the condition before and after treatment.

LIVERPOOL MEDICAL INSTITUTION.

Miscellaneous Business.—Operations for Varicose Veins.—Ehrlich-Hata Remedy for Syphilis.

A MEETING of this institution was held on Dec. 22nd, 1910, Dr. T. R. BRADSHAW, the President, being in the chair.

In reply to a communication from the Education Committee addressed to the secretary the following resolution was passed:—

The members of the Liverpool Medical Institution are absolutely opposed to any plan by which school children found on inspection by the school medical officer to be defective receive treatment by the voluntary hospitals. They are also of opinion that the fee proposed by the local education authority for the correction of defective vision is inadequate.

Mr. R. E. KELLY read a note on the Operations for Varicose Veins. He gave an account of the historical evolution of the various methods of operative treatment and then described Mayo's operation, which he had performed recently about 12 times with excellent results.—Mr. K. W. MONSARRAT read a note on the same subject. He considered that no standard operation was suitable to all cases; that as reflux from deep to superficial veins was the main cause of varicosity in the latter, it was of the first importance to ascertain where this reflux was occurring. On this investigation depended the choice of operation. There were three types of operation: (1) simple resection of the internal saphenous close to its termination; (2) resection confined to varicose branches below the knee; and (3) total saphenectomy.—Mr. W. THELWALL THOMAS, Mr. RUSHTON PARKER, and Mr. G. P. NEWBOLT all considered that there were some cases which no operation would cure.—Mr. THOMAS said that usually some modification of the Trendelenburg operation was the best. In Trendelenburg's original description the saphena was ligatured at the junction of the middle and lower third of the thigh or a little lower. Mr. Thomas found that this was not always satisfactory, and in 1896 recommended in the *Liverpool Medico-Chirurgical Journal* that the vein should be tied near to the saphena opening.—Mr. NEWBOLT mentioned the case of a patient in whom the operation promised to be very

successful, and was so for four years, but after that time the varicosities returned in greater degree than ever.

Dr. R. STOPFORD TAYLOR and Dr. R. W. MACKENNA communicated a paper on the Ehrlich-Hata Remedy for Syphilis. They pointed out that the last five years had been full of great advances in their knowledge of syphilis, and referred to the work of Schaudinn, Neisser, Metchnikoff, and Wassermann. They then described the history of the use of the arsenical derivatives in the treatment of syphilis—Donovan's solution, atoxyl, arsacetin, hectine, and arsenophenyglycin, "418." Three years ago Ehrlich pointed out that the arsenic in atoxyl was fixed, not to the amidogen group, but to the benzine nucleus. This was the first step which led to the discovery of "606." The chemical formula of "606" was described, and the great danger of oxidation unless the preparation was mixed immediately before use was mentioned. Dr. Taylor and Dr. MacKenna recommended the method of Michaelis for preparing the powder, but considered that the intravenous injection was incomparably superior to intramuscular injection. They detailed the effects of the remedy on some syphilitic lesions and these were extraordinary. The primary sore became smaller in 48 hours, and the secondary symptoms disappeared in about a week. Mucous patches in the throat disappeared in 36 to 48 hours. Tertiary ulcers of the pharynx and periosteal nodes lost their painfulness in 24 hours after one full dose. The remedy acted by a powerful lethal effect upon the spirochæta, the protoplasm of which contained chemo-receptors which had a special affinity for "606," and also by the liberation of endotoxins from the spirochætes thus destroyed, which brought about the production of antibodies. That antibodies played a part was shown by the fact that syphilitic babies nursed by their mothers got well, but no arsenic was found in the milk. The dangers of the administration were pointed out, but when Ehrlich's directions were followed the mortality had been only 1 in 1000. Optic atrophy had occurred in only 1 out of between 20,000 and 30,000 cases. The remedy might be of use in pachymeningitis and gummatous infiltration. A number of cases treated by Dr. Taylor and Dr. MacKenna, including some under the care of Mr. Arthur Evans, were then referred to. The most remarkable was that of a man, aged 30 years, who developed syphilis in April, 1910. When seen he had numerous mucous patches on the tonsils and soft palate with glandular enlargement and pain on swallowing. He received an injection of 0·6 gramme intravenously. Within 24 hours he could swallow without pain, and in 48 hours the mucous patches had completely disappeared. Another case was that of a man, aged 25 years, with a chancre on the lip and a macular rash, who received 0·45 gramme intramuscularly. In one week both the rash and the chancre had disappeared. Dr. Taylor and Dr. MacKenna concluded with a tribute to the genius of Ehrlich, and expressed the opinion that in the new remedy they had a unique weapon against syphilis.—Mr. ARTHUR J. EVANS then gave details of seven further cases in which he had used the remedy, the result in each case being the rapid disappearance of the signs of the disease. Constitutional symptoms were often marked but transitory.—Several questions were asked and these were replied to.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases.

THE first clinical meeting of the session was held on Dec. 16th, 1910, Dr. J. DOBSON being in the chair.

Mr. A. L. WHITEHEAD showed a case of Wound of the Eye, Frontal Sinus, and Cerebrum, caused by a pellet from an air-gun. The eyeball was ruptured and was therefore excised; the fragments of bone splinters were removed from the frontal sinus and the roof of the orbit. A skiagram showed that the pellet had broken into two pieces; one was removed, but the other could not be found. Subsequently an attempt was made to remove this portion, using the X ray screen, but without success, the bullet still remaining in the frontal portion of the cerebrum.

Mr. H. SECKER WALKER showed a case of Electric Cataract caused by severe burning of the face by electricity (3000 volts). Several plastic operations had been done for the relief of the deformity produced by cicatrisation.

Dr. A. G. BARRS showed a woman, aged 26 years, who had suffered from Cerebral Tumour with two years' history of symptoms—headache, vomiting, optic neuritis, and convulsive attacks. Three weeks prior to the operation sight had suddenly failed almost completely. On Oct. 26th a decompression operation was performed; a trephine hole two inches in diameter was made beneath the left temporal muscle; the dura mater was not opened. By Nov. 21st headaches and vomiting and fits had entirely ceased. There was great improvement in vision and the optic neuritis was clearing up. Power of walking, which had been lost, considerably returned. On Dec. 16th improvement was still maintained.

Mr. B. G. A. MOYNIHAN showed a case in which Transgastric Resection of an Ulcer on the posterior wall of the stomach had been performed. The patient, a female, aged 51 years, had suffered from "indigestion" since the age of 16. Pain came on within half to one hour of taking food, and was always worse on the left side along the costal margin and up to the breast; vomiting relieved the pain. An operation was performed on Nov. 18th last. A large ulcer was found on the anterior surface of the stomach, adherent to the anterior abdominal wall. On the posterior surface of the stomach there was a large ulcer adherent to the tail of the pancreas. The anterior ulcer was excised, and through the opening so made the posterior ulcer was excised and the cavity in the pancreas closed by suture.

Mr. WALTER THOMPSON showed: 1. A case of Trigeminal Neuralgia treated by injection of alcohol in a patient aged 62 years. The neuralgia was of four years' duration, following extraction of a left upper molar tooth. Pain was increasing and was paroxysmal in character. The patient had been operated upon on Sept. 19th, under cocaine, alcohol (80 per cent.) being injected into the nerve at the foramen ovale and the infra-orbital foramen. Considerable improvement had resulted. 2. A case in which Hernia of the Small Intestine had occurred into the lesser peritoneal sac. In 1909 gastro-enterostomy was done at another hospital. On April 25th, 1910, the abdomen was opened because of persistent vomiting. A considerable amount of the small intestine had passed through an opening in the posterior layer of transverse mesocolon; the opening would admit the hand. The intestine was reduced, and the margin of the opening stitched to the line of gastro-enterostomy junction. On Sept. 22nd symptoms recurred, and the abdomen was again opened. The upper foot of jejunum was found adherent, kinked, and obstructed. The adhesions were freed and lateral anastomosis was done.

Dr. A. BRONNER showed a case of Glaucoma treated by trephining the sclera at the corneal margin, and by cyclodialysis (Fergus's operation). In this case a previous iridectomy and posterior sclerotomy had failed to relieve the tension, which was now considerably improved.

Dr. E. F. TREVELYAN exhibited: 1. A case of Stationary Muscular Atrophy limited to the hands. The patient, a female aged 24 years, showed considerable wasting and corresponding paralysis of the small hand muscles. Nutrition and power of the forearms and arms were perfect. There were numbness and diminished knee-jerk in the left leg. The present state was the same as when the patient was shown to the society six years ago. 2. A woman aged 32 years with marked habit spasm affecting the head. Improvement had taken place under electrical and exercise treatment.

Mr. J. F. DOBSON showed a boy, aged 19 years, who had sustained a Fractured Base with Cerebral Compression for which an intermusculo-temporal decompression operation was performed. He was admitted into the infirmary on May 2nd, 1910, having fallen from a ladder. Symptoms of fracture of the base of the skull were present, with very severe cerebral compression. At the operation a fracture of the vault running down into the base of the skull was found, with extra-dural and intra-dural hæmorrhage. Removal of clots and drainage of the subdural space were performed. Cerebral irritation was present for some days after the operation. The patient still complained of some headache and dizziness.

Dr. W. H. MAXWELL TELLING showed: 1. A man who had had an Acute Arthritis of one joint from oral sepsis. He was first seen on August 31st, 1910, and then had marked swelling of the right wrist-joint of five weeks' duration, with

much œdema, pain, and thickening affecting the right wrist and carpus. There was no gonorrhœa or previous joint affection. The mouth, which was full of carious stumps and in a very septic condition, was treated antiseptically. Guaiacol carbonate was given internally and the teeth were extracted, with immediate and rapid improvement of the joint condition. By Nov. 9th, all acute inflammation disappeared, only a little stiffness of the joint remaining. 2. A woman, aged 39 years, who had had Pernicious Anæmia of the severest type and who had made a marked recovery. She was admitted into the infirmary on August 6th, 1910, with a history of pernicious anæmia of four years' standing, with relapses. On admission the attack had lasted 14 weeks, and she was extremely ill, being jaundiced, very anæmic, vomiting almost all food, and having retinal hæmorrhages and dilated heart. Blood showed the changes typical of pernicious anæmia. August 8th: Red cells, 1,112,500; hæmoglobin, 40 per cent.; colour index, 2. The patient was treated with arsenic and cacodylate of soda but got worse, and her case was regarded as hopeless. Sept. 15th: It seemed impossible that she could live many days. Blood: red cells, 600,000; hæmoglobin, 30 per cent.; colour index, 2·5. Shortly after this she began to improve markedly. Oct. 5th: Red cells, 2,150,000; hæmoglobin, 50 per cent.; colour index, 1·1. At the convalescent hospital she continued to improve. Dec. 12th: Discharged, being of fair colour, able to walk about, though somewhat weak. Blood: red cells, 3,600,000; hæmoglobin, 85 per cent.; colour index, 1·2; stained film showed nothing abnormal.

Mr. REGINALD WILSON showed a case of Ruptured Intestine and Abdominal Wall. The patient, a youth, sustained an injury in which the intestine was ruptured and extruded through a rent in the abdominal parietes. The skin over the rent alone held; the gut lay immediately under it in a pool of fæces. Enterectomy was performed.

Mr. R. LAWFORD KNAGGS exhibited a series of cases of Fractures into Joints and Fractures Treated by Lane's Plates.

Mr. G. CONSTABLE HAYES and Dr. M. J. STEWART showed a Villous Papilloma of the Naso-pharynx Invading the Nasal Cavities.

Other cases were shown by Dr. L. A. ROWDEN, Dr. T. CHURTON, Mr. H. COLLINSON, Dr. J. GORDON SHARP, and Mr. MICHAEL A. TEALE.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Exhibition of Specimens.—Impacted Ureteric Calculus.

A MEETING of this society was held at Manchester on Dec. 16th, 1910, Dr. W. K. WALLS, the President, being in the chair.

Dr. FRANCES IVENS read notes and showed specimens of the following cases: 1. Localised Adenomyoma in a Tuberculous Fallopian Tube removed from a young married woman complaining of dysmenorrhœa and dyspareunia. The right tube was generally thickened with a nodule at the uterine end. Microscopically the tube showed typical tubercles. The nodule was composed of adenomyomatous tissue also showing giant cells and round-celled proliferation. Reference was made to the two similar cases described by Von Franqué and Parsons and Glendining. 2. Keratinising Adeno-carcinoma of the Uterus removed from a spinster aged 41 years. Dr. Pantland Hick investigated the tumour microscopically and found the growth to present in the older portions the appearance of a squamous carcinoma with cell-rests, but the glandular origin was evident in sections taken from the growing edge. 3. Chorion-epithelioma of the Uterus preceded by vesicular mole, and associated with unusual nervous symptoms. The mole, retained for seven months, was removed from a multipara aged 47 years. Involution took place, but two months later the uterus had enlarged, and profuse hæmorrhage occurred. Rigors and an elevated temperature took place three days before operation. After hysterectomy, on Oct. 3rd, 1909, severe shock was present, the temperature fell to 95° F., and stupor developed, followed by convulsions, ptosis, loss of sphincteric control, and increased tendon reflexes. Gradual recovery took place, but the illness was a blank in the mind of the patient. She went home weak, but otherwise well and able to walk. Two months later contractures developed and death took place in January, 1910. The cause of the cerebral symptoms was undetermined as no necropsy was obtainable. It was possibly toxæmia followed by encephalitis and cerebral softening, as the gradual onset negatived a metastatic embolus and no definite symptoms of cerebral tumour were present.

Dr. A. J. WALLACE showed an Enlarged Uterus removed from a woman aged 67 years. Before operation its upper border reached 10 inches above the pubis, and it measured 9½ inches transversely. The enlargement had been noticed for three months only. On examining the tumour after removal it was found to be apparently a mere shell of uterine wall containing altered blood. The anterior wall had an average thickness of ¼ inch, the posterior of ½ inch. Complete section of the "shell" demonstrated a layer of undoubted myomatous tissue of varying thickness in the posterior wall and an apparent thin layer of similar tissue in front. There was no trace of the cavity of the corpus uteri, except near the internal os, where a few flattened glandular elements suggested the remains of endometrical glands. The condition had had its origin from a myoma which had become cystic; hæmorrhage had occurred into the cyst, the resulting distension of which had produced obliteration of the endometrial cavity and enormous enlargement of the senile uterus.

Mr. R. FAVELL reported a case of Impacted Ureteric Calculus which had clinically simulated a uterine fibroid. It was discovered after the body of the uterus, which contained several small fibroids, had been removed. The left ureter was found dilated to the size of the forefinger and an impacted stone could be felt near the entrance to the bladder. The stone was removed and several ounces of purulent fluid allowed to escape from the ureter, which was then ligatured at the level of the pelvic brim. The lower end of the ureter was drained into the vagina by splitting the cervix. The kidney was markedly enlarged and lobulated. The patient made a good recovery, and later no enlargement nor tenderness of the kidney could be detected. The history showed that for three years before the birth of her first child (13 years ago) she had severe pain in the left side; but after the birth of the child the pain ceased, and did not recur until one year ago. Since then it had been steadily increasing, and for a month it had been very severe. There had never been any urinary symptoms beyond the scalding and occasional attacks of increased frequency of micturition.

Dr. W. E. FOTHERGILL exhibited: 1. Pregnancy complicated by Red Degeneration and Infection of a Fibroid. 2. Large Cyst of Uterine Origin with Fibroids.

Dr. T. B. GRIMSDALE showed: 1. Perithelioma of Uterus. 2. Sarcoma of Uterus.

Dr. W. BLAIR BELL exhibited: 1. Lutein Cyst of Ovary. 2. Torsion of Ovarian Cyst and Fallopian Tube.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Cœliac Axis Aneurysm treated by Operation, Introduction of Wire Tent.—Thrombosis of the Superior Mesenteric Vein.

A MEETING of this section was held on Dec. 16th, 1910, Sir JOHN W. MOORE, the President, being in the chair.

Dr. JOHN LUMSDEN showed a man, aged 38 years, who had been engaged at a somewhat heavy class of work. There was a history of syphilis 16 years ago. Dyspeptic symptoms had been present since the beginning of the year. Abnormal epigastric pulsation was first noticed last August on his admission to Mercer's Hospital. In September last a tumour of the size of an orange was felt in the epigastrium, extending upwards under the left costal arch. Impulse was of a forcible and expansile character. A bruit was heard below the lump and conveyed along the aorta to both femorals. The femoral pulses were to be felt readily. The heart was normal but for accentuation of the aortic second sound. Blood pressure in radial artery was 110 mm. Hg. No pain. The diagnosis was saccular aneurysm of the aorta, probably from the neighbourhood of the cœliac axis. The patient was placed on large doses of

iodide of potassium, complete rest in the recumbent position with a modified Tufnell's diet being enjoined. No improvement taking place, after consultation with Mr. W. I. de C. Wheeler, operation was decided upon.

Mr. WHEELER described the evolution of surgery of the abdominal aneurysm. The patient exhibited resembled the vast majority in being a male, having a specific history, and having the aneurysm springing from the region of the cœliac axis. Mr. Wheeler had operated seven weeks ago and had introduced into the sac 150 inches of gilded wire in the form of a cage by the method of Colt and D'Arcy Power. For the first few days the aneurysmal pulsation was more tumultuous than before the operation, but since then there had been a distinct diminution of pulsation and hardening of the tumour.—Dr. WALTER G. SMITH and Dr. T. PERCY C. KIRKPATRICK discussed the case.—Dr. H. STOKES inquired as to the collateral circulation set up.

Dr. LUMSDEN, in reply, said that medical treatment of aneurysm in the past had been distinctly unsatisfactory. He had himself had four cases under his care—three men and one woman. The woman died suddenly six months after diagnosis, and no cause of death was discovered. One of the men died suddenly three months after diagnosis.

Mr. WHEELER, in reply, said that death was the result in nearly every case without operative treatment. The post-mortem examination, in cases where operation had been done, showed not a soft clot but a laminated clot, sometimes consolidated altogether, so that he did not see how the operation could be regarded as unscientific. Collateral circulation was well established, though by what means he did not know. No cases published, without operation, showed any cures; while there had been cures in every series with operation, so that he thought the operation was undoubtedly justifiable.

Mr. J. J. BURGESS read an account of a case of Thrombosis of the Superior Mesenteric Vein. The interest in this case was the comparative mildness of the abdominal symptoms and the prominence of those of a cerebral type, so that the finding at the necropsy was a surprise. The very few cases of primary thrombosis of this vein were referred to. The case was acute and terminated fatally in eight days with gangrene of portion of the jejunum. The marked feature was the early development of coma and the partial recovery from, and return to, that state, with symptoms of cerebral compression, evidently toxæmic.—Dr. H. C. DRURY, Dr. SMITH, and the PRESIDENT discussed the case, and Mr. BURGESS replied.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 21st, 1910, Mr. W. Morley Willis, the President, being in the chair.—Dr. Ernest H. M. Milligan read a paper on Cerebro-spinal Fever. He described the signs and symptoms, diagnosis, and treatment, &c., of the disease, giving his observations on over 300 cases seen during the epidemic in Belfast in the City Fever Hospital, Purdysburn. Statistics were given of the frequency of the different signs and symptoms, the mortality rate in relation to age of those affected, the age incidence of the disease, and also the results of treatment by Flexner and Jobling's serum. The diagnosis was carefully gone into, stress being laid on the mode of onset. In all cases lumbar puncture was advised and the estimation of the opsonic index, as in doubtful cases the diagnosis can be settled by these means, the opsonic index being of great use after the sixth day of the disease; the fallacy of the Widal reaction as diagnostic from typhoid fever or typhus fever was noted. The great benefit derived from the use of Flexner and Jobling's serum was described and Dr. Robb's latest returns were given, the death-rate being 27·5 per cent. in 109 cases injected with serum. Dr. Robb's comparison of the death-rates outside hospital without serum with those inside treated with serum was considered of great importance, there being a reduction in the mortality of the difference between 85·2 per cent. and 26·6 per cent. in favour of the serum. Taking everything into account, Dr. Milligan considered that a reduction of the mortality by about 40 per cent. could be obtained by use of the serum. In the course of the paper the following conclusions were arrived at: 1. That owing to the occurrence of mild cases and toxic cases without meningeal symptoms the disease may be unrecognised unless lumbar puncture be done and the blood examined. 2. That the disease is spread largely by carriers and mild cases as well as by acute cases. 3. The search for these carriers and mild cases was advised to prevent spread of the disease. 4. That the intestinal mode of entry of the disease was probable. 5. That Flexner and Jobling's serum was of very marked value and should be given early. 6. The opsonic test was useful in diagnosis after the sixth day. 7. That sudden death after apparent recovery was always a possibility.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—A joint meeting of this society and the Bradford division of the British Medical Association was held on Dec. 20th, 1910, Dr. W. Mitchell, the President, being in the chair. The following specimens and cases were shown:—The President: Some cases from the X ray department.—Dr. C. F. M. Althorp: (1) Case of Epithelioma of the Chin and Lower Lip operated upon three years ago; (2) specimen of Polypus of the Small Intestine causing Intussusception; and (3) specimen of Fibroid Uterus removed by abdominal hysterectomy.—Dr. A. Bronner: A case of Choroido-Retinitis simulating Retinitis Pigmentosa in a boy 8 years old with good vision.—Dr. T. Jason Wood: Specimens of (1) Fibroid Uterus and Broad Ligament Cyst removed by abdominal hyterectomy; (2) Calculous Kidney; (3) Malignant Growth of the Upper Jaw (Dr. Bronner's patient); (4) Scirrhus Cancer of the Breast with unusual amount of Ulceration of the Skin; and (5) Extra-uterine Gestation (Kaiserling preparation).—Dr. H. J. Campbell: Liver, Spleen, and Stomach from a case of Ascites in which death occurred suddenly.—Mr. T. Wilmot: Kidneys from a case of Puerperal Eclampsia.—Dr. F. W. Eurich: Cases of (1) Thomsen's Disease; (2) Cardiac Infantilism; (3) Tabes in an old woman; and (4) Psychosis of Peripheral Neuritis. He also demonstrated a Clinical Method for the Detection of Blood.—Dr. A. Little and Mr. Goyder: Three cases after Decompression Operation for Intracranial Tumour: (1) tuberculous tumour in the region of the internal capsule; (2) tumour of pituitary body; and (3) tumour in the posterior cranial fossa.—Mr. Goyder: (1) Five cases after operation for Cleft Palate; (2) Five cases after operation for Hare-lip; (3) specimen of Gangrenous Small Intestine removed from a case of Strangulated Umbilical Hernia; and (4) specimen of Prostate removed by Young's Perineal Method.

BATH CLINICAL SOCIETY.—A meeting of this society was held on Dec. 2nd, 1910, Mr. F. Lace, the President, being in the chair.—Mr. Donald Ackland read a paper on Oral Sepsis, showing that many obscure illnesses and pathological processes are frequently the result of, or are secondary to, septic conditions of the mouth, nose, and nasal sinuses, the gastro-intestinal tract and glands opening into it becoming infected from oral, nasal, and auditory suppurative processes, deformities such as arthritis and tenosynovitis in many instances being but symptoms of the primary trouble—the oral sepsis. Of the conditions included under this heading pyorrhœa alveolaris and its treatment by the vaccine method was more especially discussed.

THE ROYAL SANITARY INSTITUTE.—A provincial sessional meeting will be held at Bradford on Feb. 3rd and 4th, 1911. The members will meet at the Town-hall, Bradford, at 2.30 P.M., and proceed to visit the open-air school at Thackley. In the evening a discussion will take place in the council chamber of the Town-hall on "School Clinics." The chair will be taken at 7.30 by Dr. Louis C. Parkes, chairman of the council of the Institute, and the debate will be opened by Dr. L. A. Williams, medical superintendent to the Bradford education authority. The following have consented to take part in the discussion: Dr. J. R. Kaye, Dr. S. G. Moore, Dr. E. M. Smith, Dr. A. E. L. Wear, and Dr. Ralph P. Williams. On Feb. 4th members will meet at the Town-hall, Bradford, at 9.45 A.M., to inspect the school clinic, after which a special tramcar will be in readiness to take them to see the municipal dairy at Heaton. In order to prevent disappointment it is essential that those wishing to be present at the visits should notify Dr. W. Arnold Evans, Medical Officer of Health, Health Department, Town-hall, Bradford, or the Secretary of the Institute, not later than Jan. 27th, so that proper arrangements may be made in due time. Tickets for admission of visitors, who are invited to intervene in the debates, may be had on application to the same gentlemen.

Reviews and Notices of Books.

A Handbook of the Surgery of Children. By E. KIRMISSON, Professor of the University of Paris, Surgeon to the Hospital for Sick Children, &c. Translated by J. KEOGH MURPHY, M.C. Cantab., F.R.C.S. Eng., Surgeon to the Miller General Hospital for South-East London, Senior Assistant Surgeon to the Paddington Green Children's Hospital. Oxford Medical Publications. London: Henry Frowde and Hodder and Stoughton. 1910. Pp. 822. Price 20*s.*

BOOKS which give to the student a superficial veneer of knowledge sufficient to enable him to emerge successfully from examinations, and teach no lasting or profitable lesson, whose aim is to include in the smallest bulk the greatest possible amount of material, when they have served their immediate purpose are done with and forgotten. Such treatises, states Professor Kirmisson, suit neither his taste nor his years. We therefore turn expectantly to find within his volume lessons that are really useful both to the medical student who is anxious to acquire sound principles for the practice of his profession and to the practitioner. The author's aim has been to paint a picture in which the principal facts will be found among the high lights, and in the shadows all that is of less importance. The translator has endeavoured faithfully to reproduce the distinguished author's opinions as well as his words, not attempting in any way to alter the text, but adding footnotes where an explanation or addition seemed necessary. And we may say at the outset that the two great subjects which dominate infantile surgery—namely, malformations and diseases of the locomotor system—are very fully treated, and on such conditions as appendicitis, mastoiditis, diseases of the throat, intussusception, &c., a sound practical knowledge of surgery is inculcated, that knowledge which is so much more required in the treatment of these conditions than exceptional skill in operative surgery.

The work is divided into four parts, dealing respectively with surgical affections of congenital origin, injuries in childhood, inflammatory lesions and disorders of nutrition, and tumours. In a short appendix to this, the English edition, Dr. Cecil Hughes has added notes on the production of anæsthesia in children which should be of use both to the surgeon and anæsthetist. Surgical affections of congenital origin are dealt with in regional sequence. Preceding the description of the congenital malformation of each region is a short and lucid account of the development of the part and a statement of the embryological considerations that arise. In cases in which satisfactory results are known to have followed particular surgical procedures the methods are given for surgical cure, but the author does not hesitate to state his disagreement with those who advocate craniectomy for microcephaly, and other proceedings which experience has shown are purely theoretical and futile. All the well-known and accredited plastic operations are fully described, and this part, as well as the rest of the book, is profusely illustrated with drawings of classical types, the object being to make descriptions intelligible rather than depict particular cases. The treatment of club-foot is fully described and illustrated, the author favouring the treatment in two stages as originally recommended by Adams, and for cases of long standing with severe bony malformations he has devised a modification of Phelps's operation of mid-tarsal arthrotomy. For congenital dislocation of the hip the method of Lorenz has now proved itself efficacious and safe in many hands. The author gives a moderately full description of a bloodless method. The technique of the application of the plaster apparatus for fixation of the limbs in full abduction is one which has the most important bearing upon the final result of the operation. It is therefore a surprise to find on p. 272 of the book a figure depicting a plaster sheath which extends above to the level of the ribs and below to midway between the knee and ankle, thus entirely preventing the alternate flexion and extension of the knee-joint each day which is mentioned by the author as being necessary. In those cases in which the patients have passed the age for which the bloodless method is available the author rightly points out the need for care in recommending raising of the foot, which in loose joints is productive of great harm.

Part II. deals with injuries in childhood, which are first considered generally and then in detail. A very full and particular account is given of injuries involving the elbow-joint, and sound principles of treatment are inculcated. Under this heading are included the cicatricial results of burns and foreign bodies in the auditory and respiratory passages. Inflammatory lesions and disorders of nutrition occupy over 400 pages, and are dealt with in 12 chapters as follows: (1) Osteomyelitis; (2) Tubercle of the Bones and Joints; (3) Rickets and Other Defects of Development of the Skeleton; (4) Syphilis of the Bones and Joints; (5) Deformities which are the Result of Affections of the Nervous System; (6) Middle-ear Disease and its Complications; (7) Affections of the Pharynx and Nasal Fossæ; (8) Inflammation of the Cervical Glands; (9) Maladies of the Thorax; (10) Abdominal Affections; (11) Affections of the Anus and Rectum; and (12) Maladies of the Genito-urinary System. It is here, perhaps, more than elsewhere, that an opportunity is afforded the author to place before his readers in a conspicuous manner the practical and useful lessons which he teaches, leaving in shadow the less important facts, thus justifying the aim of his writing. In this we think he has well succeeded, and the reader in search of practical information, sound principles, and reliable guidance in difficulties will find them here. It is not the author's purpose to mention all the forms of treatment in use, but only those which to his personal knowledge have proved satisfactory, and in consequence many well-recognised forms of treatment are unnoticed. Nor is it possible for a single individual to write with equal authority on all departments of surgery. We therefore have found instances in which we disagree with the author in what he considers to be the best means of carrying out the sound principles of treatment which he lays down. Nevertheless, it is a book which we can recommend to the medical man in active practice as one which he will at all times find useful and thoroughly reliable.

A Text-book of Pathology for Practitioners and Students. By JOSEPH MCFARLAND, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia; Pathologist to the Philadelphia General Hospital and to the Medico-Chirurgical College, Philadelphia; Director of the Henry Phipps Institute, Philadelphia, &c. Second edition, thoroughly revised. With 437 illustrations, a number in colours. London and Philadelphia: W. B. Saunders Company. 1910. Pp. 856. Price 21*s.* net.

PATHOLOGY has so far extended its boundaries and has come to occupy so important a place in the medical curriculum that it is an ambitious undertaking to endeavour to deal with the whole subject in a single volume: the prevalent tendency is to divide it into general and special pathology and to devote separate volumes to each of these. Professor McFarland states that his work was primarily intended for students working for the degree of Doctor of Medicine, and that he desired to explain the principles of pathology rather than to deal with controversial questions. No doubt

there is an advantage in collecting all the necessary information in a single volume, especially in facilitating reference, but the result is a bulky volume in rather small print, with some of the less important sections in still smaller type. But our fault-finding stops there. The book is a very useful one—the subjects are dealt with clearly and nothing essential is omitted. The arrangement of the subject matter is good; facts are given rather than discursive presentations of ill-digested observations and theories. Although the type is small the book is well printed, the headings are set out in thick type, and the illustrations are numerous and well chosen.

In the section of general pathology the etiology of disease is considered from the pathological standpoint, and then the defects of development with the various malformations and anomalies resulting are described. A chapter follows on the pathology of nutrition, in which derangements of digestion, assimilation, secretion, and excretion are briefly reviewed. Abnormal conditions of the circulation are described, but in somewhat less detail than one might expect in a work of this importance. An interesting chapter on the characteristics of cell life includes a brief though clearly written account of the fundamental characteristics, both structural and physiological, of cells. Regenerative and retrogressive tissue changes are next described, and the accounts given of the individual degenerations and infiltrations may be mentioned as being concise and clearly defined. This chapter is one which is worthy of special commendation. Under the heading of progressive tissue changes hypertrophy and tumour formation are included. Tumours are discussed at some length, and the classification adopted is that of Professor Adami into lepidic and hylic, but certain modifications are introduced in some details. A chapter is devoted to a general consideration of parasitism, in which the more important vegetable and animal parasites are classified and briefly described. The descriptions given of the parasites of malarial fevers, of piroplasmosis, and of the various forms of trypanosomiasis are very good and well illustrated.

The difficult subject of immunity is dismissed with rather less consideration than its importance and intricacy demand. A short description of Ehrlich's side-chain theory is given, but it is so brief that it is doubtful whether a student would be able to derive a clear conception from it of this far-reaching hypothesis. The general pathology of infection and of the infectious diseases is next considered. Under this heading the phenomena of inflammation are included. Professor McFarland gives a useful description of this process, though he appears to minimise the part played in it by the tissue cells. The general characters of the specific or infective granulomata are next given. These are dealt with more fully, and descriptions will be found here of the general characters of the lesions of tuberculosis, leprosy, glanders, actinomycosis, mycetoma, cattle farcy, rhinoscleroma, mycosis fungoides, aspergillosis, and syphilis. These accounts are copiously illustrated by figures representing the macroscopic and microscopic characters of the typical lesions of these conditions.

The second part of the book is devoted to special pathology and follows conventional lines, the diseases of special organs or systems being considered in separate chapters. The pathology of the blood is first dealt with, the variations in its characters under different conditions being clearly outlined. The general characters of the individual primary and secondary anæmias are then given, and the blood picture in each is differentiated, being also well illustrated by coloured reproductions of the appearances of stained blood films. Some of the less common blood conditions such as purpura are only very briefly referred to. The chapter on diseases of the cardio-vascular system commences with a short account of congenital malformations. The morbid changes occurring in the pericardium and myocardium are then dealt with, and endocarditis with its results is discussed. A bald discussion of the physiology of the circulation under abnormal conditions is included. In connexion with diseases of the blood-vessels, the condition of arterio-sclerosis and its results are clearly described, but the characters of syphilitic mesaortitis are not defined as clearly as might be.

Diseases of the digestive system are well classified, and the descriptions given of all of the important morbid changes are good. The chapter devoted to these conditions extends to 87 pages, and within this compass is included a great deal of useful and carefully weighed information. Diseases of the respiratory system are adequately described. The account given of pulmonary tuberculosis, though brief, contains all the essentials, and the description of empyema may be mentioned as worthy of special note. Diseases of the skin are dealt with in sufficient detail, and the chief characters of the various eruptions, including those of the exanthemata, are dwelt upon.

Diseases of the spleen, lymphatic nodes, thymus gland and bone marrow are considered together, and the chief morbid conditions affecting them are enumerated and briefly discussed. In the chapter on diseases of the motor apparatus, the abnormal conditions affecting the bones and joints are carefully described, though acute rheumatism, rheumatoid arthritis, and gout might perhaps have been treated at greater length with advantage. Diseases of the nervous system are classified and discussed on ordinary principles, and some good reproductions of sections prepared to show degenerations are included. The remaining chapters are occupied by diseases of the reproductive system and of the urinary system respectively, and call for no special comment.

The book as a whole may be recommended as a useful text-book for students and as a work to which the practitioner may refer for general information in regard to pathology. There is a good index, which should facilitate its use for this latter purpose. The writer has obviously had considerable experience of teaching, and has presented his subject-matter clearly and from a practical standpoint. There are a few mistakes in spelling which have escaped correction. Thus the trypanosome of sleeping sickness is referred to as "trypanosoma gambensi" on page 289, and as "trypanosoma gambiensi" on page 305. "Ali nasi," on page 381, and "epuli," on page 471, are other examples. In regard to the digestion of proteins, the new nomenclature is not adopted, and these bodies are referred to under the old name of "proteids."

A Manual of Surgical Anatomy. By CHARLES R. WHITTAKER, F.R.C.S. Edin., Senior Demonstrator of Anatomy, Surgeons' Hall, Edinburgh. With 48 illustrations in the text. Edinburgh: E. and S. Livingstone. 1910. Pp. 248. Price 5*s.* net.

THIS book, which is offered to the student as providing him with the outlines of the subject, is compiled from the notes of the author's lectures delivered at the Surgeons' Hall, Edinburgh. As a series of lecture notes upon surgical anatomy the book fulfils its function well, for it is brief and dogmatic, fairly well up to date, and much of its information is tabulated. Such tables as those which give the lymphatic supply of various organs are especially useful, and they will help the student in the revision of his subject for examination purposes. The book makes no pretence at giving an exhaustive system of surface markings, but in the case of the more surgically important regions the most noteworthy lines are mentioned. Some of these are not to be recommended. The directions given for trephining for the posterior branch of the middle meningeal artery (p. 12) at 1¼ inches behind

the external angular process and ¼ inch above Reid's base line, would land the operator in most cases in serious difficulty. The statement that the symphysis pubis cannot be palpated in the male because it is masked by the root of the penis and the penile muscles (p. 183) requires some qualification, as does also the dogmatic assertion that there is no anatomical middle lobe to the prostate (p. 176), and that the uvula does not reach to the dorsum of the tongue (p. 48). Of the clerical slips needing alteration we notice that the term "superficial fascia" is used when the author obviously means the superficial layer of the deep fascia (p. 76), and that the lymphatic glands described as the "supraclavicular" set all lie below the level of the clavicle (p. 93). The habit of dissecting the sole of the foot reversed from its natural position has also led the author into using the word "downwards" instead of the correct "upwards" in describing the arterial supply of the sole (p. 235). There are several minor blemishes about the book, but all are easily corrected in any subsequent edition, and when the book appears again it is to be hoped that the author will include more references to the anatomy of the female body than the mere description of the mamma, which is the sole representative of female anatomy in the present work.

The illustrations to the book are for the most part original and are diagrammatic. There are very few improvements made in the perfecting of various industrial methods that do not bring some drawback in their train; and the cheapening of line reproduction processes has proved the undoing of the meagre draftsmanship of modern anatomy. That an illustration is intended only to be diagrammatic is too often taken as an excuse for its careless drawing, and it is hard not to regret that process work is so cheap that the illustrator need not think twice before sending a very inferior piece of work for reproduction. Had reproduction been more laborious and costly, we are inclined to think that Mr. Whittaker would have hesitated to submit some of his figures to the process of block-making. Fig. 2 is an example of careless draftsmanship. The figure is intended to give the surgical guides to the middle meningeal artery: the pterion is abnormally represented, no indication of the great wing of the sphenoid is given on the surface of the skull, and the temporal bone appears to articulate with the malar; in addition to this, there is the appearance of an extra suture across the occipital bone. Fig. 4 is again a very poor piece of work and cannot prove of any real use as a surgical guide. More care might have been expended also on the naming of the illustrations, for "T.S. middle left leg" and "T.S. penis" might be expanded with some advantage. These are evidences of hurried work which should not be permitted to creep in and spoil the effect of a manual intended to teach the precise application of anatomy to the science of surgery, and having good claims to do so.

The Principles and Practice of Medical Jurisprudence. By the late ALFRED SWAINE TAYLOR, M.D., F.R.C.P., F.R.S. Sixth edition. Edited, revised, and brought up to date by FRED. J. SMITH, M.A., M.D. Oxon., F.R.C.P. Lond., F.R.C.S. Eng., Physician to, and Lecturer on Medical Jurisprudence at, the London Hospital. In two volumes. London: J. and A. Churchill. 1910. Vol. I., pp. 950; Vol. II., pp. 887. Price £2 2*s.*

THE general scope and nature of this excellent text-book are too well known to require any words of explanation from us. The editor explains in his preface that the chief changes introduced into the sixth edition are a further reduction in the number of woodcuts, thus leaving more room for letterpress without increase of bulk, some reduction in the space occupied by the criminal aspects of wounding, and a considerable reduction in the pages devoted to lunacy. These omissions have been counterbalanced by large additions to the discussion on the legal relationships of anæsthesia and an expansion of the treatment of assurance, rendered necessary by the prominent position which actions under the Workmen's Compensation Act of 1906 are now assuming in legal medicine.

Dr. Smith has very properly devoted considerable space to the various points which may occur in cases brought into court under the Act just mentioned. The question of what is an accident has now assumed complexities and proportions unthought of some years ago, and medical practitioners are now frequently confronted with the legal aspects of injury to workmen in some form or another. Dr. Smith divides the subject into four divisions: (1) The defining of an accident apart from its results; (2) the relation of an accident to pre-existent disease; (3) the relation of an accident to subsequent disease; and (4) trade diseases directly due to the nature of employment. Numerous cases are quoted to show the problems which may come before the courts when damages are claimed for an injury received by a man in the course of his employment, and by close attention to the remarks and study of the cases which are related a large amount of valuable information may be acquired. Our columns have shown persistently since the Act became law how difficult are many of the questions involved, and Dr. Smith deals with many of them skilfully.

The administration of anæsthetics has of late been much and vigorously discussed, and Dr. Smith's remarks on the subject are specially interesting as they are expressed boldly and are evidently the result of careful thought and cogitation. There is certainly need for legislation considering the enormous number of anæsthetics that are administered. His suggestions as to the broad lines upon which a Bill should be promoted are as follows:—(1) That only properly qualified persons should administer an anæsthetic and receive the protection of the law; (2) that it shall be possible for a public inquiry to be held on a fatal case; (3) that a public inquiry should not necessarily follow on a death unless the person giving the anæsthetic was unqualified; (4) that the option of initiating an inquiry shall rest with any of the persons concerned who may feel dissatisfied with the result without an inquiry—i.e., the surgeon, the anæsthetist, or the nearest relative, guardian, or executor of the deceased, or with the lay committee of the institution in which the death occurred; (5) that the form of public inquiry shall take [some other form than a coroner's inquest as at present constituted—i.e., a special jury of some kind; (6) that practical and theoretical instruction in the administration of all the anæsthetics in common use shall be demanded of every candidate for a medical qualification, and also of every candidate for a dental diploma. A Bill passed on these lines would to a certain extent cover the ground of the Bill now under consideration, but legislation exactly in accordance with the suggestions made is not very probable. We are strongly of opinion that the coroner's court is not the right place to inquire into fatalities under anæsthesia; but Dr. Smith's suggestions for a Bill include matters of education which can be, and will be, dealt with by the General Medical Council.

We once again congratulate the editor, Dr. F. J. Smith, on the result of his labours, which are heavy and responsible. Taylor's "Principles and Practice of Medical Jurisprudence" still holds a permanent place in text-books dealing with the subject and will be found of the first value to members of the legal profession as well as to medical practitioners.

LIBRARY TABLE.

Medical Service in Campaign. A Handbook for Medical Officers in the Field. By Major PAUL FREDERICK STRAUB, Medical Corps (General Staff), United States Army. Illustrated. Philadelphia: P. Blakiston's Son and Co. 1910.

Price $1.50 net.—This neat little handbook, which has been prepared by Major Straub under the direction of the Surgeon-General of the United States Army and published by authority of the War Department, contains the substance of a series of lectures delivered by the author at the medical department camp of instruction at Antietam. While primarily written for medical officers of the regular army and National Guard, it should prove most useful not only to other officers but also to students of military subjects at service schools in the United States of America, who must necessarily give some consideration to the disposition of the medical service in all of the larger tactical problems. During recent years the military forces of the United States have been largely reorganised, and the medical department has shared in this improvement. Particular care is taken to select candidates for commission as military surgeons who are exceptionally well grounded and trained in the duties of their profession. The approved candidates are given a year's instruction at the army medical school in subjects specially indicated for the service. The writer very rightly points out that army medical officers are not merely *healers* of disease, but that their efficiency also depends in *preventing* disease, and thus helping the fighting line of its encumbrance of sick. Chapter II. deals with collateral military subjects, such as preparation for field service, orders, map reading, weapons, casualties, and transportations. The sections on weapons and casualties are most interesting, as the range and efficiency of modern firearms are discussed in a practical manner. A statistical table showing the casualties from various campaigns is given. The loss in the individual battles in the Russo-Japanese war was much greater than in previous wars, being 16 to 20 per cent., as against 7 per cent. in the Franco-German war of 1870-71. At the battle of Mukden the Russians lost 2·9 per cent. killed and 16 per cent. wounded, and the Japanese 4 per cent. killed and 17 per cent. wounded. At Sedan 35 years previously the Germans lost *under* 1 per cent. killed and 1 to 3·9 wounded, and the French lost 2·7 killed and 1 to 4·6 wounded. "It would appear, therefore," says Major Straub, "that the battles in the Far East were 'bloody,' not because of their longer duration, but also on account of the high efficiency of the weapons used." Chapter IV., dealing with administration, and Chapter V., describing battle dispositions, both form interesting reading. Major Straub has compiled a well-turned-out little book on the medical service arrangements of the United States army which should prove valuable to the officers connected with this service and a useful work of reference for those of our officers who wish to study the medical arrangements of other armies.

Conversations with Women Regarding their Health and that of their Children. By A. RABAGLIATI, M.A., M.D. Edin., F.R.C.S. Edin., Honorary Gynæcologist (late Honorary Surgeon), Bradford Royal Infirmary. Bradford: William Byles and Sons. 1910. Pp. 318. Price 5*s.* net.—Dr. Rabagliati has certainly a somewhat novel creed to expound, as we learn when he informs us in his preface that energy is the immediate cause of material substance, and that he does not believe that material substance is the cause of energy. He holds that "gravitation is not a property of matter but a form of the universal energy which incorporates itself in material substance in order to its own manifestation." Energy is to be regarded as flowing into and procreating the atom at one stage, and flowing out again coincidently with the breaking up of the atom at another stage. From the point of view of the author matter is not eternal, but energy is. In these conversations human bodies are viewed as procreations by the human power of life (what the author terms anthropino-zoo-dynamic) to be fitting habitations for the manifestations of all the powers of human life. These powers act through the functions of organs, and the fundamental or primary one of these, from the author's point of view, is nutrition. According to Dr. Rabagliati the fundamental character of nutrition is proved by the fact that the first step in development is the turning in of the outer layer of the embryo to form the body cavity, which body cavity is the beginning of the digestive tract! He then goes on to say that when "we perceive this point clearly and adapt our physiological conduct to it we incidentally add a large number of years to healthy, happy, and efficient human life." As he remarks, it is certainly very curious and very interesting, but we must confess we are completely unable to follow either the author's argument or his meaning. On the application of this idealistic theory the author has built up a book dealing with the health of women and that of their children.

Golden Rules of Refraction. By ERNEST E. MADDOX, M.D. Edin., F.R.C.S. Edin. Bristol: John Wright and Sons, Limited; London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. Pp. 98. Price 1*s.*—This is the third edition of what the author describes as a "little miniature of a subject to which only a large volume could do justice." The description is accurate. It is intended "chiefly for the help of general practitioners who may be commencing the study of refraction." Unless the general practitioners are exceptionally situated in that they are able to correct many refractions under the supervision of a competent teacher we fear that the book will be of little value to them. For the medical student who approaches the subject seriously and under proper control it will form a very useful reference book to carry in his pocket, and even the expert may be recommended to read it through, for he will find several valuable "tips" which we do not remember to have seen collected elsewhere. Moreover, he will find nothing to cavil at in the teaching, as was, indeed, to be expected in a book on this topic by Dr. Maddox.

The Treatment of Syphilis by the Ehrlich-Hata Remedy (Dioxydiamidoarsenobenzol). A Compilation of the Published Observations by Dr. JOHANNES BRESLER, Chief Physician to the Provincial Medical Establishment at Lüben, Silesia. Second edition, much enlarged, with the portraits of Ehrlich and Schaudinn. Translated by M. D. EDER, M.R.C.S. Eng., L.R.C.P. Lond., with an abstract of the most recent papers. London: Rebman, Limited. Pp. 122. Price 2*s.* 6*d.* net.—This is a translation of the second edition of Dr. Bresler's pamphlet, and it consists mainly of abstracts of the chief papers which have been published on the use of "606," especially those which have appeared in Germany. There is an appendix by the translator which contains *résumés* of those articles which have been published since the publication of the original German work, and this notices most of the papers which have appeared in this country. The book will prove chiefly of use as showing what has already been written on the subject. The information is somewhat undigested, but this will not in any way militate against its use as an introduction to the subject.

Die Mikroskopischen Untersuchungsmethoden des Auges. Von Dr. S. SELIGMANN. Berlin: S. Karger. 1911. Pp. 324. Price, paper, M.8; boards, M.9.20.—Dr. Seligmann's book has proved its utility and is improved by being brought up to date in this second edition. The division into two parts, general and special, and the main features of the work remain the same. There are useful bibliographies appended to the sections. New methods of staining for fat, glycogen, axis cylinders, neurofibrillæ, &c., are described. Sections on staining blood cells and bacteria have been added. We find no mention of the advantage of freezing the eye before cutting it preparatory to making microscopical sections.

Where topographical detail is so important, as in most preparations of the diseased eye, this method is to be recommended strongly. On the other hand, it is, in our opinion, unnecessary to make holes in the walls of the globe to allow fixing fluids to penetrate. Even sublimate solutions, such as Zenker's, which we concur with the author in advocating, penetrate quite satisfactorily without running the risk of damaging the structures by the method which the author advises. The directions are precise and reliable, and the book is the most useful one on the subject which we have seen.

First-Aid to Injured and Sick. By J. F. SUTHERLAND, M.D. Edin. London: Houlson and Sons. Edinburgh: John Menzies and Co. Thirty-sixth edition, revised and enlarged. Pp. 32. Price 3*d*.—This is a waistcoat-pocket memorandum that will be useful to the general public, particularly those whose occupation brings them especially into contact with accidents.

Herbert Fry's Royal Guide to the London Charities, 1911. Edited by JOHN LANE. London: Chatto and Windus. Pp. lvi.–375. Price 1*s*. 6*d*.—This handbook, now in its forty-seventh issue, serves a double purpose. First, it directs the needy to those charities that will best succour their special source of distress; secondly, it sets forth the aims, incomes, needs, and other particulars of organised charities, so that those who may be prompted to bestow some portion of their income may so inform themselves as to make a judicious choice. The past year has been a very bad one for charities, the main reasons suggested for this being the death of King Edward, which has increased distress by lessening the usual avenues of employment, and secondly the facts that the financial changes introduced by the Budget has made business wavering and uncertain, while the changes in the licensing law threaten many with severe curtailment of their incomes, and the increased death duties have necessarily diminished legacies for charitable purposes. At Christmas-tide, however, hearts and purses are opened, and this little book will come to the aid of many who would be willing to give if they only knew how to bestow their mite judiciously.

The Religions and Philosophies of the East. By J. M. KENNEDY. London: T. Werner Laurie. Pp. 296. Price 6*s*. net.—Mr. Kennedy tells us in his preface that he has attempted to apply the Nietzschian standards of good and bad to the main principles of the more important religions of the East. To do this he gives a short account of the chief beliefs and tenets of Brahmanism, Buddhism, Mohammedanism, Judaism, Confucianism, and Shintoism, together with a few remarks on Parseeism and Mithraism. Advanced thinker as Mr. Kennedy would appear to be, his opinions will be anathema to the modern democrat, for we find him saying on p. 267 that "the religion of men of inferior intellects must be prescribed for them by the higher order of men, and not, as is usually the case at present, *vice versa*." And again, p. 32, "In the 'civilised' countries of the West the dregs of society are permitted to rule the whole community." It is no part of our duty to argue for or against the correctness or otherwise of these sentiments, but we can say that Mr. Kennedy has produced an interesting book. On account of the very wide range of subjects with which it deals in a brief manner it is necessarily superficial, but the reader will find at the end of the book a very fairly complete bibliography of works dealing with the various religions by a study of which he may read up the subject more at length.

New Year's Diaries and Calendars.—To most medical men a pocket diary is essential and to many a desk diary in addition. They therefore form useful and acceptable New Year gifts. As in former years, we are able to commend in this respect the productions of John Walker and Co., and the well-known original Letts's diaries, published solely by Cassell and Co. Messrs. Walker continue to produce neat and convenient pocket-cases containing slip-in diaries and note-books of various sizes. The same firm's Pearl diary, of waistcoat-pocket dimensions, is particularly neat. Letts's diaries are so well known that they need no description. They are issued in various sizes, with or without interleaved blotting pages. The accident insurance coupon is not omitted, and we are informed that claims amounting to £3500 have been paid to holders of Letts's diary coupons. They also publish a Nurses' Report Book and Diary, which should prove a great convenience to district nurses, and a convenient and narrow medical visiting list. We have also received physicians' and surgeons' visiting lists, published as neat pocket-books, by Hazell, Watson, and Viney, John Wright and Sons of Bristol, and Rudall, Carte, and Co., containing a large amount of useful information in the preface.

JOURNALS AND MAGAZINES.

Brain, a Journal of Neurology. Edited by HENRY HEAD, M.D. Camb., F.R.S. Vol. XXXIII., Part 130. London: Macmillan and Co. Price 4*s*. net. Yearly 16*s*. net.—This journal maintains its high reputation, and continues to attract important and interesting papers. The present number contains an account of an exhaustive research on the functions of the "Mesencephalic Root of the Fifth Nerve," by Sir Victor Horsley and Dr. Otto May; a paper by Dr. Harvey Cushing, which we have noticed elsewhere, on "Strangulation of the Sixth Nerves by Lateral Branches of the Basilar Artery in Cases of Brain Tumour"; a paper on "Tumours of the Third Ventricle," by Dr. Weisenburg; and one on "Central Nervous Response to Peripheral Nervous Distortion," by W. A. Osborne and Basil Kilvington. There are thus contributions from England, from the United States, and from Australia, all of them of more than usual interest.

The Birmingham Medical Review.—In the November issue of this magazine is published the first of the Ingleby lectures for 1910, delivered by Professor R. F. C. Leith. It deals with so-called simple or benignant tumours of the uterus, including the important subject of fibroids. Dr. W. A. Potts writes on the laws of heredity as bearing on the problem of the feeble-minded, a condition which the researches carried on at the Galton laboratory show to be inherited.

The Medical Chronicle.—In the November number is an address by Mr. C. B. Lockwood dealing with the relationship borne by carcinoma, sarcoma, and endothelioma respectively to inflammation. He holds that all these conditions own the same cause. For the purpose of his thesis he attempts one more definition of inflammation to add to the many already proposed—viz., that inflammation is the increased number of cells in a part caused by an irritant. Dr. Robert Lakin continues his study of the blood and urine in conditions associated with dropsy, but does not reach any very definite conclusions. To the December issue Dr. W. B. Warrington contributes a most interesting paper on neurasthenia, setting forth the theories which have recently been propounded in explanation of this and allied functional disorders dependent on alterations in the synapses or junctions between the neurons. Dr. R. T. Williamson contributes a review of recent literature dealing with medical geography.

Edinburgh Medical Journal.—The existence of a form of multiple inflammation of joints, simulating rheumatism but connected with tubercular infection, has been much ventilated in France, but has received little attention in this country. Professor Alexis Thomson, therefore, does good work in calling attention to the investigations which have been made into this pathological condition. His address on

this subject, published in the December number of this journal, is well worthy of careful perusal. Dr. John Strachan sets forth some novel views as to the functions of the corpuscles and fibrin of the blood in his Harveian Oration, delivered at Edinburgh and published in the same journal. Other papers are those by Dr. Lewis C. Bruce on the importance of physical examination in mental cases, by Dr. M. Douglas on infection of the urinary tract by bacillus coli, and by Mr. J. Crawford Renton on gastric and duodenal surgery.

Contemporary Review.—The January number of the *Contemporary Review* covers a large range of subjects, and contains one article of distinctly medical appeal—an explanation of the message of the late Professor William James. As Professor James would have admitted, "pragmatism," as he left it, did not attain to any final expression, but none the less Professor Jacks finds its author a thinker of the first rank, "not always unconfused it is true, but yet with a clear vision ahead of him, a range of varied philosophical experience behind him, and with a great human purpose in his heart." The article is a closely written investigation of the controversies introduced by Professor James into the philosophical world, and those interested in such high dialectics will do well to read it.

The issue of the *Cornhill* for January shows that this vigorous example of the great Victorian magazines is as good to-day as ever. Its more immediate congeners have perished, but it remains strong in interest, literary in character, and agreeable in form. The article most distinctly of medical interest is one by Mrs. S. A. Barnett upon Town Planning; but our readers may be interested in a series of examination papers on the works of famous authors, which is started by 12 questions upon the "Essays of Elia" propounded by Mr. E. V. Lucas; while Mr. Benson's story of the life of "J. K. S." has considerable psychological importance. Two serial novels are begun, one by Mrs. Humphry Ward and the other by Mr. and Mrs. Egerton Castle.

The Burlington Magazine.—The *Burlington Magazine* begins the year with a very good number, containing a great deal of information useful not only to those who desire artistic discussions, but also to those who are specialising as collectors in different directions. The editorial article on National Memorials is a timely reminder that to obtain a satisfactory memorial to a dead king, or to any other celebrity, is in this country not easy. The editors of the *Burlington Magazine* suggest that it is not enough to throw open the competition to all British artists without distinction, so long as the jury consists of the type of official artists to whom in the end the commission will certainly be given. Mr. Cescinsky continues to write on the furniture of the Gillow "Cost-books," and to collectors of furniture these articles have many points of interest. Mr. Clutton Brock, in a very sagacious paper, attempts to explain what the Post Impressionists would be at. His article will be more convincing to those who have not seen the pictures, but those who have seen them will coincide with his closing sentiment in which he says that the "public (British) seems to find them amusing, and after all it is better to be amused than to be bored." There is an interesting note on the work of the brothers Le Nain, a selection of whose paintings are now on exhibition at the Burlington Fine Arts Club.

ISOLATION HOSPITAL EXTENSION AT COVENTRY.—The Coventry city council has had before it a scheme for enlarging the present accommodation of 60 beds by an additional 40, which, with the population estimated at nearly 100,000, will give 1 bed per 1000 of the number of inhabitants. The cost of carrying out the scheme, which the council has approved, is put at £11,500. It was also decided, at the same meeting, to appoint a disinfector and another assistant-inspector of nuisances, and to erect a public mortuary at an estimated cost of £2150.

Reports and Analytical Records
FROM
THE LANCET LABORATORY.

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NOTHING could be more convenient and effective for the production of formaldehyde vapour than the calogen block. In a trial we made with it torrents of formaldehyde vapour were given off, and it is important to add that the formaldehyde so evolved is moist. It is well known that dry gases are not effectual as germicides. The block consists of a column of permanganate with some bichromate of potassium, and on moistening this with formaldehyde solution the gas is rapidly disengaged. In actual operation the block is placed in a clean pail or other metal receptacle, and from 5 to 6 ounces are poured over the column. It is as well to cover the bottom of the pail with a few ounces of water before starting the reaction. This simple method is obviously useful for aerial disinfection, in rooms, schools, hospitals, and places of public resort generally.

ALBULACTIN.

(A. WÜLFING AND CO., 12, CHENIES-STREET, LONDON, W.C.)

Albulactin is described as the vital protein of human milk and as being quite distinct from casein. It appears to be the albumin contained in human milk which is not present to anything like the same extent in cow's milk. Some authorities regard this fact as an explanation of the failure of cow's milk to feed the human child quite satisfactorily. Clinical reports, at all events, are quoted which in face of the evidence presented entirely support this view. The most striking results are those in which diluted cow's milk failed by itself, but succeeded when a proportion of albulactin was added to it. If that is the case, then the use of albulactin marks a decided advance in artificial infant feeding. According to our examination, albulactin shows a decidedly alkaline reaction and contains: moisture, 10·40 per cent.; mineral matter, 6·0 per cent.; and albumin, 83·60 per cent.

DIETETIC STOUT.

(PETER WALKER AND SON, PANCRAS-ROAD, LONDON, N.W.)

Analysis revealed some favourable features in this malt liquor. The practical absence of volatile acidity is particularly satisfactory and indicates a healthy condition. Moreover, the stout is "smooth" and "soft" on the palate. The malt extractives amounted to 5·81 per cent., of which 7·0 per cent. consisted of proteins. There can be little doubt, therefore, of the nourishing value of the beverage. Further examination indicated that the stout is made exclusively from malt and hops. The mineral matter contained an abundance of soluble phosphates. While the stout is decidedly nutritious, its condition is sound, and its alcoholic strength is not excessive. The amount of alcohol found was just under 5 per cent. by weight.

(1) VAPOROLE AND (2) SOLUTION HEMISINE AND COCAINE HYDROCHLORIDE; (3) "TABLOID" PHOTOGRAPHIC CHEMICALS FOR COLOUR PHOTOGRAPHY.

(BURROUGHS, WELLCOME, AND CO., SNOW HILL BUILDINGS, LONDON, E.C.)

A combination of the suprarenal active principle with cocaine is obviously useful in dental practice, especially when the powerful hæmostatic is in such proportion as not to cause too much constriction of the capillary blood-vessels of the socket. The preparation is supplied (1) in the convenient "vaporole," a hermetically sealed glass bulb containing the solution sterilised, or (2) in stoppered bottles of 10 cubic centimetres capacity. (3) The photographic tabloid offer an undoubted facility to workers in colour photography, the

application of which in medical studies is well worth pursuing. We understand that the whole process of development in the production of a colour photograph, reversal, redevelopment, and intensification can be carried out with solutions of tabloid rytol, tabloid reversing compound, and tabloid colour plate intensifier. These tabloids should render considerable assistance in the production of colour photographs in skin diseases, of histological specimens, and so forth.

GALVANIT.

(THE GALVANIT MANUFACTURING CO., 6 AND 7, GEORGE-STREET, HANOVER-SQUARE, LONDON, W.)

Galvanit, a successful plating powder, has been before the public some little time, but recently a series of powders has been introduced which are adapted to scientific and surgical purposes. The powder called "stannit," for example, affords an excellent way of renovating the surfaces of surgical instruments. A perfectly uniform silvery metal is deposited upon the steel by merely rubbing it with the moistened powder. According to Professor Sylvanus P. Thompson, in this process the particles of the finely divided electro-positive metal make innumerable contacts with the copper surface and act as so many minute anodes. These innumerable minute anodes gradually dissolve, and in dissolving set up in the liquid little local circulations of electric currents which, as they leave the liquid, throw down from the metal in solution a film upon the surface, which thus acts as a cathode and becomes plated over with the deposit. We have tried the powder on various surgical instruments with success. Special plating powders are supplied for different metallic surfaces.

GROATLINGS.

(J. AND W. ARBUCKLE, COLTBRIDGE MILLS, EDINBURGH.)

This is oatmeal in the form of fine grains, a treatment of an admittedly valuable food which renders it dietetically very satisfactory. There can be little doubt that coarse particles are a source of irritation to many persons, while they often prevent or complicate complete cooking. The graining process is conducted also in such a manner as to preserve unimpaired the esteemed nutty flavour of high-grade oatmeal. On analysis we found the product yielded normal results; it contained, for example, 9·4 per cent. of moisture, 3·0 per cent. of mineral matter with an abundance of phosphates, and 10·4 per cent. of protein. It makes a porridge bland and smooth as milk.

"FLANKETS."

(CHRISTOPHER WILLIAMSON, 91, EDGWARE-ROAD, LONDON, W.)

We are sure that these all-wool sheets will be appreciated by many people who feel chilled at the touch of the linen sheet in winter. The "flanket" is a decided improvement upon the flannel blanket, which is often a source of irritation to the skin. We found on examination that the flanket was pure wool. It has a smooth surface and is comfortable next to the skin. They will supply, we think, a domestic commodity which will be acceptable to many persons who feel the cold severely. They are certainly more hygienic than the flannel blanket, and while warm are not heavy.

FORMAROSE TABLETS.

(ARTHUR H. COX AND CO., ST. MARTIN'S-PLACE, BRIGHTON.)

Formarose tablets embody an excellent formula for throat and mouth disinfection. An interesting novelty in regard to them is that in the course of preparation of the tablet a concentrated infusion of fresh flower combined with a very small quantity of genuine oil of rose is employed. The result is a pleasant and elegant antiseptic lozenge.

CELLULOSE FILMS.

(W. MARTINDALE, 10, NEW CAVENDISH-STREET, LONDON, W.)

These films are prepared in three forms and thicknesses, known respectively as taffetas (yellow), aseptafilm (colourless), and cellafine (colourless thin). The film is a very interesting product which is perfectly transparent and analogous in appearance to gelatin sheeting. Taffetas is used as a substitute for oil silk; aseptafilm is suitable for applying direct to wounds; and cellafine is a grease-proof covering which is of service in many obvious directions. The films are not affected by alcohol, ether, or chloroform, nor by prolonged immersion in hot water, and there is no difficulty, therefore, in sterilising them. These interesting films, made of an entirely innocuous material, promise to be of distinct service in medicine.

RUSKS.

(EMIL PAULY, 98, UPPER THAMES-STREET, LONDON, E.C.)

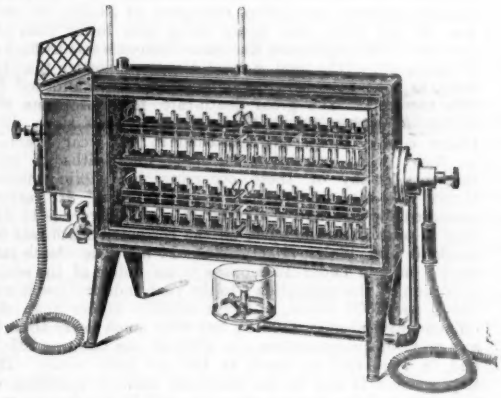
This is a well-prepared crisp rusk, having as well a good keeping quality. It is free from an excessive amount of sugar and contains butter-fat and milk protein. We found that 23·0 per cent. of the rusk was soluble in water. The fat amounted to 3·45 per cent. The rusks are digestible and nourishing. Their texture involves thorough mastication, and that is probably one good reason why the rusk is digestible.

New Inventions.

(1) A NEW OPSONIC INCUBATOR; AND (2) THE ANHYDRIC INCUBATOR.

THE new opsonic incubator is fitted, as shown in the accompanying illustration (Fig. 1), with Hearson's ingenious thermostat and capsule which automatically keep the temperature constant. The incubator consists of a double-sided reservoir and is provided with a glass front and back. It is intended to be used on a bench facing the light, and at the back are two grooves for the insertion of different

FIG. 1.

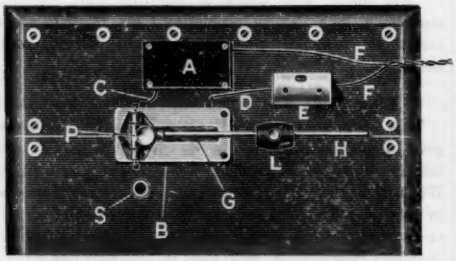


coloured glasses. For the examination of blood a red glass is used, while for toxins a blue glass is used. On the side of the apparatus is a small tank fitted also with Hearson's patent thermostat and capsule. The temperature of the tank is regulated for 56° to 60° C. for the sterilisation of liquids. It contains two perforated plates, one for ordinary test-tubes and the other for small tubes. The apparatus is very neat and compact, and lends considerable assistance in carrying out the Wassermann test.

In the anhydric electric incubator the constant temperature desired is obtained entirely by the electric current from the main. The incubator, which is of the ordinary type, is wound round with electric resistance wires covering every part of the chamber formerly occupied by the water-jacket. Directly the current is switched on there is a steady production of heat over every part of the interior surface of the chamber, increasing until the expansion of the thermostat

brings about the automatic interruption of the current. There is, of course, no heating arrangement below the incubator. The illustration (Fig. 2) shows the resistance apparatus on the top of the incubator. A is the junction-box; B, china base; C D, conductors; E, fuse-box; F, "leads" to main current; G, platinum contacts; H, lever

FIG. 2.



rod; L, lead weight; P, a milled-head screw; and S, thermometer hole. Instructions for working the incubator are sent out with each apparatus by the manufacturers, Messrs. Hearson, of 235, Regent-street, London, W. The incubator works satisfactorily and smoothly by merely switching on the current from the main, so that its convenience cannot be disputed.

PUBLIC HEALTH AT CAPE TOWN.

THE report on the vital statistics of the city of Cape Town for 1909–10 bears no date, but appears in good time, and therefore has all the more interest. The birth-rate for Europeans here, as elsewhere, is decreasing, though not rapidly, nor in a regular ratio. For the period to which the report refers—July, 1909, to June, 1910—the ratio was 22·6 per 1000, the European population being estimated at 34,300; for the coloured population, estimated at 32,250, the ratio was 50 per 1000, this figure being also lower than the average. The illegitimate European birth-rate was as high as 9·5 per cent. of the total, a much higher proportion than has hitherto been recorded; no explanation can be afforded for this increase. The gross death-rate for Europeans was 13·23, a higher figure than in any year since 1904 (when it was 14·3), but less than in any year previous to that; when correction is made for deaths of non-residents (many of these occurring in public institutions) the rate is lowered to 10·72, but if further corrected for age and sex distribution the figure is 14·61; this is practically the same as the corrected death-rate for England and Wales (1909)—viz., 14·5. The death-rate among infants under 12 months is an index of the social condition of the population; in the year under review it was 104·2 per 1000 births, a figure slightly higher than the quinquennial average (102·8), but very much lower than in any previous quinquennium; in 1900–05 the rate was 135·1, and in 1895–1900 as much as 180 per 1000 births. The improvement is due to the improved sanitary condition of the city, and the greater attention paid to the feeding and care of young infants. A lady inspector visits and takes notes of obvious sanitary defects and faulty methods of feeding; she advises as to the preparation of food, cleaning of bottles, and so on. It is very satisfactory to find that these visits are much appreciated.

The zymotic death-rate was 1·25 per 1000 for Europeans, measles, diarrhœal diseases, and whooping-cough being the chief causes. There was a serious epidemic of measles, lasting from November to June. Dr. A. J. Anderson, the medical officer of health, believes that nearly every susceptible child took the disease; it is not yet notifiable, and is therefore not generally regarded as a serious complaint, so that precautions against cold are not taken. The number of deaths returned does not, of course, represent the true fatality of the disease, as many are certified as broncho-pneumonia. During the last three years diphtheria has been of a severe type, though not prevailing to any considerable extent. In 1909–10 there were 38 cases and nine deaths; it is noted that drains were defective in many instances; no allusion is made to milk-supplies nor to any other possible mode of spread. There were 41 cases of enteric fever in Europeans, 15, however, being introduced into Cape Town from outside; only one death occurred. Defective drains are stated to have been present in 17 cases; no other cause is suggested, and there was nothing in the shape of an outbreak. The death-rate for tuberculosis among Europeans was 1·65 per 1000, or, if corrected for non-residents, 1·45; but as the constitution of the population is such that there is a larger proportion than is normal of persons in middle life (when the death-rate is higher), if the suitable factor for correction is applied the death-rate comes out as 1·30 per 1000. There were 69 cases notified amongst Europeans, of whom 35 were clearly shown to have contracted the disease before coming to reside in Cape Town; but in addition 14 deaths from tuberculosis occurred among Europeans that had not been notified. Great care is taken in regard to isolation and disinfection; and, as far as possible, advanced cases are removed to the Old Somerset Hospital, while cases which will derive benefit are treated in chalets. Fortnightly visits are paid to notified cases. Dr. Anderson considers these visits to be of great assistance in seeing to the cleanliness and ventilation of the dwellings, the use of spit-cups, &c.; he has been "struck with the improvement that has taken place in many cases which were apparently hopeless when notified." The Free Dispensary is opened one evening in each week for the examination and treatment of persons supposed to be suffering from the disease; but adequate accommodation for advanced cases is urgently needed. Not a single case of small-pox was notified during the year.

As to general health conditions, in regard to water-supply, this is satisfactory as to its source, being derived from springs on Table Mountain. Each house is supposed to have a covered galvanised iron tank for storage, fed on the "dribble" system, but there are many defective water barrels and other makeshifts still in use as cisterns, and the provision of a constant supply is an urgent necessity. Some part of the supply is derived from a catchment area on Table Mountain, which yields a water discoloured from vegetable matter held in solution. An experimental plant has been installed to remove this objectionable constituent. The health officer states that the water as delivered to the inhabitants is remarkably pure and free from injurious matter. We should like to have seen more particulars as to the sources of supply and its chemical and biological characters, on which points it is usual to rely on the medical officer's report for information. The arrangements for milk-supply within the city are regularly inspected and kept up to the mark; but the water sources of farm premises and places outside the city are in many cases grossly polluted. Dr. Anderson considers that the time has now come when a public supply of water should be laid on to the district whence the milk is derived. Mosquitoes cause considerable annoyance within the city, and measures are being taken to endeavour to exterminate them; nothing is said as to the species that are found, or their relative abundance. Only one death occurred during the year from malaria.

The coloured population in Cape Town numbers 32,250; their death-rate was 35·28 per 1000, or 33·30 when corrected for non-residents; and their zymotic death-rate was 4·27. Measles, whooping-cough, and diphtheria prevailed to some extent, also enteric fever. Tuberculosis was the most frequent cause of death, giving a ratio of 7·00 per 1000; or, if corrected for residence and age constitution, 6·04 per 1000. Pneumonia was also fatal, as is the case with native races generally.

ASSAULT ON A MEDICAL OFFICER OF HEALTH.—At Penzance on Dec. 21st last a man was fined 5s., and his wife was bound over to keep the peace for 12 months, for assaulting Mr. J. R. M. Richmond, medical officer of health of the Penwith rural district council. Evidence showed that owing to the insanitary condition of the defendants' cottage Mr. Richmond had been ordered by the magistrates to inspect the dwelling. When Mr. Richmond attempted to enter the cottage the man pushed him away, and the wife procured an axe and threatened "to cleave him" with it.

THE LANCET.

LONDON: SATURDAY, JANUARY 7, 1911.

The Promise of 1911.

WE are entering not only upon a new year, but upon a fresh decade. The twentieth century so far has done its full share in developing the natural resources of the world and in turning them to account for man's benefit: there are no signs of pause in the forward movement, or of any slackening of the attention with which the public scrutinises all that, occurring in any scientific or professional department, is proclaimed as beneficial to the community. We may anticipate that when future generations review the social history of the years 1901–10, the practical application of wireless telegraphy, the popularising of the mechanically propelled vehicle, and the attempt to overcome the difficulties and dangers of aerial navigation and of aviation will be found to rank among the most prominent feats of human ingenuity. We are not called upon to prophesy, with regard to this last, that the rivalry of the flight of birds with the aid of an engine and fixed planes will pass into a permanent improvement of human amenities; but whatever we may expect the verdict of posterity to be upon the value of the mechanical innovations, we may be sure that the fearlessness of the pioneers of aviation will never be forgotten. We have alluded to three sudden leaps forward that have occurred in mechanical construction. The onward movements in medical science may vary, or appear to vary, in pace; but they are seldom characterised by these abrupt leaps. Our progress is usually made without sensational features such as would focus the public attention. It is, on the whole, steady, and the most notable advances have the least obvious appeal to the public eye, so that we consider it to be of good promise for the future, that a more general interest in medicine appears of late to be aroused.

The year 1910 has not witnessed the exorcising of the demon Tuberculosis, because tuberculosis is not a supernatural visitation or one susceptible to the miraculous operation of a charm; but it has seen the continued efforts of science bringing us nearer to that stage of knowledge at which mastery of the disease may be hoped for, and it has witnessed the intelligence of the nation directed to the consideration of practical measures of prophylaxis and mitigation. It has seen scientific research applied with unabated zeal, and with undiminished confidence in ultimate success, to the elucidation of the problem of cancer. It has seen the great voluntary hospitals of the kingdom and of its metropolis carrying on their good work with increased efficiency, and a generous public, in spite of a period of commercial depression, of political anxiety, and of other causes which might be expected to diminish their charitable subscriptions, has supported with liberality institutions which have deserved and won its confidence. The regular subscriptions to charities have in some directions dropped off, but in other directions the money has come in. We have no doubt that the funds forthcoming in the British Islands in support of enterprises having for their object the combating of physical suffering have received a powerful stimulus from recent achievements of science, forming an illustration of the popular proverb which declares that "nothing succeeds like success." The fact that rabies can be made less deadly in countries where it is prevalent owing to the discoveries of a scientist whose beneficent work in this and other directions has had its effects in every country of the globe, and that in Great Britain the disease has been stamped out owing to precautions advised by science and undertaken by the public for its own protection, are things that the public can readily appreciate. The world has accepted at the hands of science a weapon of defence against diphtheria, and in this country the gift is now being brought within the reach of the poorest. During the past year the plague, which many medical men, as well as all laymen, have regarded as an oriental disease, extinct with us since the days of the STUARTS, has returned to shores where it was once practically endemic, to be met by science armed with the knowledge of its mode of propagation and of the practical measures to prevent the extension of its ravages. If instances needed multiplication the achievements of modern surgery might be taken as examples of that which medical men of a former generation would have regarded as almost miraculous. The surgical exploits are much admired by the public, sometimes without due discrimination, and, for this reason among others, we have sometimes suggested that the popular discussion of scientific discoveries in lay newspapers has its drawbacks. But we admit its compensating advantages. The medical profession is aware of what the popularisation of their efforts has done in the past for the cause of science, and at the opening of a new year looks forward with confidence to supplying the public with good reasons for securing public esteem.

The present year or the not distant future may see problems solved of great importance which affect the medical treatment of the poor and of the working classes, and concern, directly or indirectly, the position of a large number of members of the medical profession. The questions are intricate, and on many of them the medical profession has no settled mind, a position which we hope will be altered as discussion clears the many issues. Legislation against quackery is in the air. The medical profession, governed and to some extent protected by medical Acts of considerable antiquity, is looking forward to a day when the Legislature will better safeguard not so much the profession as the public, now exploited without hindrance by any grasping charlatan or dangerous quack who is wary enough to keep outside the provisions of the statutes referred to. An additional reason for such protection of profession and public alike should be found in the improved and extended training provided for those entering our calling. The alternative to the quack and the charlatan is now a highly instructed man who has spent some of the best years of his life, not to reckon a large sum of money, in acquiring the skill which he places at the disposal of his fellow citizens. The fuller understanding, which has certainly come about,

of the medical profession by the public leads us to hope that the difficult subject of quackery will be dealt with in a comprehensive manner. We expect no foolish monopolies.

The year that lies before us appears likely to be distinguished by political contention and uncertainty which may retard domestic legislation and the settlement of questions which the medical profession would willingly see decided. The present Administration has, however, shown itself fully alive to the importance of conserving the physical health of the people, and there is every reason to hope that some of the needed reforms, which concern the medical profession, such as those which were brought into prominence by the Reports of the Poor-law Commission, will receive serious consideration before long. Progress may also be made in other directions, such as that initiated by the passing of the Housing and Town Planning Act. We may in fact, in matters medical, congratulate ourselves upon a hopeful state of affairs and upon the prospect of a sustained forward movement in the year 1911.

Order and Charity.

THE lecture delivered by Dr. LAURISTON E. SHAW before the Stratford Division of the British Medical Association and published in THE LANCET of Dec. 24th, 1910, p. 1813, draws attention in clear terms to the present disorder of medical charity. Dr. SHAW is not content merely with indicating the causes, immediate and remote, internal and external, of this disorder, but has a remedy to offer, and in these days an ounce of constructive suggestion is worth a ton of vague criticism. Briefly stated, his remedy is the institution of a genuinely consultative out-patient department, for which, of course, he takes out no patent, for others, we among them, have made a somewhat similar recommendation. In his proposal Dr. SHAW has regard to certain limitations necessitated by the present condition of affairs, political and social. He recognises that political influence in this country is rapidly passing from SULLA to MARIUS, so that it is important, if assistance is to be expected from Government, to propose a plan which will not interfere with any State scheme which may be brought about for providing medical attendance for the very poor. At the same time it would be unwise to place any impediment in the way of such provident schemes as at present exist or may come into operation for providing medical attendance for the moderately poor, such as provident medical dispensaries and combinations of general practitioners in public medical services. Thirdly, no scheme is likely to succeed which will damage the scientific work of the great hospitals, or alienate the sympathy of those members of the medical profession in whose hands lie the education of the students and the progressive labours of scientific research. Medical charity, associated as it always has been with medical education and medical research, must not be violently divorced from them, or the professional aid dispensed by that charity will soon become a lifeless thing. The patient, the general practitioner, and the consultant practitioner (in his capacity as such and as teacher) are the three working partners whose interests are in question, and who are to be considered and satisfied in any arrangement for the distribution of medical benefits. There is, however, a fourth partner—a sleeping partner—who does not come much into contact with the actual working of any of the schemes promulgated, but who is perhaps the most important of all. The hospital subscriber cannot be left out of consideration in any hopeful proposals for hospital reform. It is probable that he may be persuaded for a time by one or two of the working partners against the remainder, but no arrangement is likely permanently to please him that does not lead to harmonious and satisfactory relations amongst all four partners in the firm.

The present disorder is largely occasioned by the prevalent neglect of the interests of the general practitioner, who sees his position gradually, but surely, imperilled by the excessive volume and uncoördinated character of much of the medical charity distributed to-day. His assistance and approval are necessary to the successful working of a hospital, if only because he is, or should be, the channel of income to much of the consultant class. The general practitioner has somewhat lost his influence in determining the destiny of charitable donations, subscriptions, and legacies, for the organisation of great hospital funds has deprived him of the position which he once enjoyed as paramount adviser to the public in such matters, but, nevertheless, his personal influence amongst the hospital subscribers in his own neighbourhood is a power to be considered; while the operation of public medical opinion, founded upon the best traditions of the medical profession, will work against the exploiting of the general practitioner by misdirected benevolence. Some are inclined to blame the philanthropist for the excess of his charity, for the want of coördination that it shows, and for the lack of discrimination in its incidence. It is not necessarily the philanthropist who is to be blamed when philanthropic schemes go wrong. As Dr. SHAW has so wisely remarked, "Sympathy with pain and suffering is a quality none could see lessened one iota without fear for the future of our race." When alms are given in excess of necessity, when judgment is wanting in the selection of beneficiaries, when philanthropists obstruct one another in their eagerness to relieve distress, charity is abused and fails of its purpose, but it is the administrators who are at fault. These things are now being generally if tardily appreciated. In conformity with the spirit of the times endeavours are being made in the management of medical charity whereby the gifts of the charitable may reach only worthy recipients, and sound hopes may be entertained that the abuses which have flourished for years out of promiscuous and ill-considered giving will be prevented, as their causes are better understood.

More than the volume of medical charity, the muddle of it is responsible for much of its present ineffectiveness, and the want of coöperation between the two branches of the medical profession is a truly vexatious factor in the trouble. There is no doubt that the interests of the general practitioner and those of the consultant do not lead both to regard the out-patient question with the same eye. The public are said to be ill-informed and ignorant

when they imagine that members of hospital staffs are remunerated for their services, but the eagerness with which hospital appointments are sought after, and the strenuous competition which prevails to secure any that are vacant, must abolish the idea that a hospital physician or surgeon considers himself to be wholly unrewarded by filling these honorary posts. Services which are voluntary, even if indirectly remunerated, possess certain features which enable those who give them to obtain consideration and respect, and the members of the medical staffs of our great charities possess great power which can be exerted for the restriction of the volume and the control of the incidence of medical charity in London and other large towns where similar evils exist. Often the influence of the medical staffs is vigorously employed in sifting their out-patient departments; but such action is apt to be individual and capricious. Coöperation between the general practitioner and the honorary medical staff of the hospitals seems necessary to bring about a just reform in hospital administration, and the consultative out-patient department, with the abolition of subscribers' letters, together with the introduction of a rule whereby admittance to a hospital shall depend on the production of a medical certificate of suitability, are proposals which deserve serious attention. And we may feel all the more certain that they will receive them because of the wise move just made by King Edward's Hospital Fund for London, which has instituted a committee to consider and report upon the whole subject of hospital out-patient practice.

Anarchism and the Criminal.

THE interest which has been aroused by the Houndsditch murders and their later developments is doubtless due chiefly to the startling contrast which these crimes in their reckless ferocity present, not only to the ordered habits of civilised life, but even to the usual methods of the most violent and most criminal members of the community in which we live. Such outbursts of savagery may moderate our excessive confidence in the stability of our civilisation by reminding us of the strength and inveteracy of the passions which that civilisation has to curb, and may make us inquire with some anxiety into the causes which have seemed of recent years to be weakening the force and authority of its salutary restraints. It is true that these particular crimes have been perpetrated by individuals belonging to a different race and civilisation, where the political institutions are of a more primitive type, and where order and the sanctions of government rest on less assured foundations than in this country. And this consideration may certainly be admitted to justify the belief that there should be little risk of the anti-social elements in our own community taking immediate example from the miscreants of Houndsditch, while the extraordinary sequel of Tuesday last has furnished an object-lesson, terrible enough, whether necessary or not, to check the outlaws of society in their desperate schemes. But it would be rash to assume on these grounds that we can have any permanent immunity from the conditions which in other countries are producing these peculiarly dangerous manifestations of criminality, or that the development of such conditions amongst us will not bring about similar results. And therefore it behoves us to examine with some care the tendencies and characteristics of this modern type of delinquency which has been so forcibly brought under our notice by the Houndsditch criminals.

One of the most striking features of this organised criminality, and a feature which has peculiarly impressed the popular imagination, is manifested not only in the application to criminal ends of the latest resources of experimental science, but also, it would appear, in the adoption by the ultra-modern criminal of the speculative doctrines of anarchism. The scientific burglar, if we may judge from recent events, is beginning to include amongst his impedimenta, as well as the oxyhydrogen blow-pipe and the latest and most costly explosives, a selection of economic and political literature of a similarly modern and destructive character. If this fact is duly established—and there is some evidence of its reality, at all events amongst continental criminals—it suggests some interesting considerations as to the relation between such subversive doctrines and the tendency to crime. Of course, the rough-and-ready explanation is to attribute the criminal conduct to the anarchist theory, but a very little reflection is sufficient to show the inadequacy of any such view. The criminals who hold anarchist opinions are still too few, and the theoretical anarchists who abstain from actual crime are too numerous to give much support to this interpretation of the facts. But though it is probably true that the alliance of the new anti-social doctrines with the old anti-social tendencies is becoming less rare, we shall do well to remember how large an element of the merely fortuitous there is likely to be in their association. The criminal, if he has any turn for speculative thought and feels any need to fit himself with a philosophy appropriate to his career, is apt, like the rest of the world, to let his opinions be coloured very largely by the mental atmosphere of his time. He will lean naturally to the theories of the day that accord with and justify his anti-social tendencies, and these theories may thus come to be regarded as the cause of conduct which in reality is simply the expression of a vicious disposition. Criminals of this type may accordingly profess anarchist opinions, but they are not criminals because of their anarchism; they are anarchists because they are criminals, and because anarchism amongst the doctrines of the hour is that which best harmonises with their parasitic and destructive inclinations. In another age they would have espoused with equal zeal doctrines of a diametrically opposite intellectual tendency but offering a similar outlet for impulses of violence; the *apache* of to-day, who has *Vive l'anarchie* tattooed over his heart and who is eager to do murder in the cause of the social revolution, would have been no less ardent in his zeal for religion and no less eager to imbrue his hands in the blood of heretics had he lived in the Paris of the sixteenth instead of the Paris of the twentieth century. The times and the ideas have changed, but the temper and the passions are the same; and just as the lunatics of our epoch are tormented by wireless telegraphy and Roentgen rays, and are no longer possessed by devils or plagued by malignant imps, so the native and instinctive barbarians of our modern civilisation do

not now profess to be inspired by religious or patriotic ideals, but may justify their lust for violence on the plea of their intense humanitarian aspirations and the ardour of their zeal for social justice. But with us the pseudo-anarchist criminal is still an uncommon type. So far as the average criminal troubles himself about social and political doctrines he is ordinarily very little inclined to extreme views; he is, on the contrary, at all events in this country, strongly conservative in his tastes and opinions, and is much more prone to conventionality than to innovation. Amongst foreign criminals, though conservatism is also the rule, revolutionary views appear to be less exceptional, and PERRIER in his interesting study of prison life ("Les Criminels," Paris, 1900) is able to quote extensively from the anarchist effusions of a number of French criminals; the passages he cites, however, are often more suggestive of deliberate parody than of the spirit of strenuous conviction. It is, however, to be noted as a very suggestive fact that the tendency to adopt these subversive views in a quite serious spirit would appear to be much more pronounced amongst the younger criminals; and on these juvenile delinquents anarchist doctrines seem to exercise a real and very deplorable influence which, according to many competent judges, has had a large part in giving to the juvenile crime of the great continental cities that character of exceptional violence and ferocity which it has so often manifested of late years. No such influence appears to be traceable, at all events as yet, in this country, where, of course, the gospel of anarchism has, fortunately, found but few preachers and few disciples. But the evidence of its effects elsewhere may well warrant some anxiety as to the response which its doctrines may one day elicit from the human material which we continue to breed from degenerate stocks in the slum environment of our towns.

The interest of the question lies, then, rather in the future than in the present. So far there is little reason to think that anarchist ideas have had much real influence on the amount or character of criminality, nor does it appear that we need attach any great significance in this connexion to the fact that some few criminals affect to share the principles of "the party of action." On the other hand, it is impossible to deny that the wider dissemination of these doctrines is likely to have in the future a very real and potent influence in stimulating criminal instincts, and this the more because the conditions of the modern world which have helped to propagate these ideas tend in so many ways to create a social atmosphere favourable to crime. That traditional and unquestioning acceptance of their essential justice, on which law and social institutions depend for so much of their authority, ceases to be possible where laws inspired by widely differing conceptions of justice and institutions, embodying widely differing social ideals, are brought into comparison and conflict, and hence there results a weakening of their restraining influence on the unstable and undisciplined minds of the community. This is in large part the explanation of the well-known fact that crime is specially prevalent at the points of contact of different civilisations; the standard of conduct is generally lower amongst immigrants than amongst native-born inhabitants, it is lower in seaports than in inland towns, and lower on the frontiers of a State than in the interior. And the whole tendency of our age is, of course, to facilitate this interaction of differing and therefore mutually solvent ideals; the religious and political institutions, the ethical standards, the literatures of each country are becoming familiar to all, and this wider outlook tends to produce a detached and critical attitude towards traditional customs and beliefs. A too rapid development of cosmopolitanism thus involves a certain danger of diffusing through all classes a spirit of moral scepticism which impels the weak and the vicious to crime, while at the same time it weakens the confidence of society in its own power and authority and thus begets a feeling of flabby sentimentalism towards the enemies of the social order. These conditions are obviously favourable for the propagation of anarchist theories, and for their speedy transference to the sphere of lawless action; and it is as a warning of this grave danger in the near future, rather than as an evidence of its actual appearance in the present, that we may note with some misgiving the recent signs of an association between anarchism and the more sinister forms of organised crime. Possibly it was with some such feeling as this that the appalling object-lesson has been given of an attack by a large and combined force of police and military upon a house in the metropolis, culminating in the burning of the house with the criminals secreted therein.

Annotations.

"Ne quid nimis."

THE NEW YEAR HONOURS.

THE opening of the new year has again been marked by the issue of a list of honours which, though it may be characterised as political for the most part, contains the names of several men distinguished in the world of science. The medical profession receives one baronetcy and six knighthoods, as well as a fair amount of minor honours. The public career of the Right Hon. Leander Starr Jameson, who has been made a baronet, needs no recapitulation from us. The work of his maturer life has not been medical, but we may confidently ascribe his success, and that in no small measure, to the rigorous training exacted by the medical profession from those who would serve her well. Among those who have received knighthood is Dr. Horatio Bryan Donkin, medical adviser to the Prison Commission and Director of Convict Prisons. As a member of the Royal Commission on the Care and Control of the Feeble-minded he did much useful work, while he also assisted the Departmental Committee on the Inebriates Acts and the Treatment of Inebriety. Mr. Frederic S. Eve, another of the new knights, is senior surgeon to the London Hospital and a consulting surgeon to the Evelina Hospital. He is a member of the Council and of the Court of Examiners of the Royal College of Surgeons of England, and his work as a clinician and a pathologist is well known to all our readers. Dr. David Ferrier, who has also received a knighthood, has to his credit original researches in neurology which have been

recognised and appreciated in all parts of the civilised world. He is consulting physician and emeritus professor of neuropathology at King's College Hospital and consulting physician to the National Hospital for Paralysis. Dr. George Newman, chief medical officer to the Board of Education, is the recipient of a well-merited knighthood. The best testimonial to the work which he has done is his suggestive report on the inspection of school children to the Board of Education for the year 1909, which was presented to Parliament at the end of last November. He is a member of the Board of Hygiene Studies at the University of London, a lecturer in public health at St. Bartholomew's Hospital, and is the author of some important publications on public health and bacteriology. Dr. Joseph Michael Redmond, an ex-President of the Royal College of Physicians of Ireland, who has written much and ably on medicine, has been made a knight. A knighthood has also been conferred upon Lieutenant-Colonel David Semple of the Royal Army Medical Corps, Director of the Central Research Institute at Kasauli, whose work on bacterial vaccines and serum-therapy generally has thus received a well-earned official recognition. The Kaisar-i-Hind gold medal has been conferred upon Lieutenant-Colonel Henry Smith of the Indian Medical Service, civil surgeon of Amritsar, and on Major Thomas Walter Irvine of the Indian Medical Service, late residency surgeon at Mewar. Sir John Reynolds Roberts, well known in the textile trade, who has been knighted, has for a long time associated himself keenly with philanthropic and charitable institutions, having presented the Woodford Jubilee Hospital to Woodford, and bountifully supported among other charitable institutions the West Ham Hospital and the Canning Town Hospital for Women. To each of these gentlemen in the name of the profession we offer our hearty congratulations.

ARCHÆOLOGY AND ANATOMY.

THERE has recently been published by the National Press of the Egyptian Government a lengthy report containing the findings of the first season's work of the Archæological Survey of Nubia. The present work constitutes Part II. of the first annual report, and it consists of one volume of descriptive text and one volume of plates illustrating representatives of the vast collection of bodies examined and some of the more important features of objects of special interest. The field-work of which these volumes are the outcome was carried on during the winter of 1907–08 in the tract of Lower Nubia lying between Shellal to the north and Khor Demhit to the south, and it embraced an examination of burial-grounds upon both banks of the Nile. The object of the expedition was purely utilitarian; there was no attractive glamour of buried treasure, no influence of the spell of the ancient dead, but only a systematic and sober recording of the conditions found in a vast number of burials which would inevitably have been lost for ever in the flooding of the Nubian Nile valley by the raised water-head of the Aswan dam. The rebuilding of the barrage, from its original height of 105 metres above sea level to its new height of 115 metres, meant that a great head of water, destined for the supply of the crops of Egypt, would be held up behind the dam in Nubia. The Nile in Nubia, when all the work is completed, will become a great reservoir of water the limits of which will far outstrip the present margins of the river banks. Owing to the geographical conditions of the Nubian Nile valley this raising of the water level must necessarily destroy practically all traces of the ancient peoples who dwelt upon the river-side, for the narrow strip of water and the sparse ribbon of foreshore provide the only habitable spot in all the country, and here, ever since man inhabited Nubia, succeeding generations have lived and died and been buried. All, save this fertile strip of river bank, is desert, and so along the margins of the river all the populations of Nubia during all the ages have had their home and their burial-place. The flooding of this strip would, therefore, destroy the one site in Nubia in which evidences of the history of the country and its peoples could be found. Unfortunately, much had already been destroyed by the original building of the dam, for above the actual water-line is an area of dampness which is immediately destructive to these ancient burials. The Egyptian Government realised the importance of rescuing the unspoiled burials from the rising water, and the Survey Department organised an expedition consisting of surveyors, archæologists, and anatomists for thoroughly examining all the burial-grounds situated within the danger zone of the new Nile level. The inclusion of anatomists in the expedition—an innovation in the methods of Egyptology—was due to the wise foresight of Captain H. G. Lyons, then Director-General of the Survey Department, and his insistence on the necessity of skilled examination of the human remains receives ample justification in the appearance of the present volume. For many reasons the site of the first season's work was likely to prove a rich field for the anthropologist. The tract of country under examination had been, through all the periods of Egyptian history, a frontier line—the line where black and white met, and where in times of peace they mingled their races by intermarriage, and in times of war killed each other in border raids, or inflicted wounds which show to-day the obvious evidences of their presence. Both for the study of the race question, and for the examination of a large series of wounds and fractures, the district around the Pillars of Konosso—the gateway to the Kingdom of the South—was a favourable site. A vast amount of work was done; no less than 2000 bodies lay exposed at one time in one single cemetery, and many of these bodies were so perfect that their examination took more the form of a post-mortem inquiry than a mere osteological inventory. Burial-places of all periods were excavated at scattered sites for a distance of some 30 miles along both banks of the Nile, and from all these cemeteries—embracing burials dating from some 3000 years B.C. to about the fifth century of the Christian era—abundant material came into the hands of the anatomists. The material was dealt with in a systematic way both at the graveside and afterwards in Cairo and London, and the questions of the race characters of the bodies met with, their age and sex, their anatomical anomalies, and their pathological manifestations are fully discussed in the report. Special attention was also paid to the state of preservation of the body and the agencies—natural or artificial—by which it was "mummified." It was in this particular form of inquiry that such an expedition was likely to furnish material of the highest value to the archæologist, for the skilled anatomical examination of correctly dated material is the method most likely to solve the problems connected with the many curious burial customs of the ancient Egyptians. It must be owned that the findings of the experts engaged in this survey are apt to be somewhat of a disappointment to those who love to wrap everything connected with ancient Egypt in a shroud of mystery and ritual. It was, however, almost inevitable that it should be so. The survey was the outcome of purely utilitarian motives; it was endowed with Government funds and carried out by specialists. It had no interested public to supply with romantic details, no museum to reap its dividend of pots and beads, and no delusions of the mysticism of ancient Egypt to be catered for by the finding of the evidences of grotesque ritual. Some of the glamour may fall from the ideals concerning mummification when it is learned that the extraordinary carelessness of the embalmers,

and their makeshift resources for repairing very badly decomposed bodies, account for most of the curious conditions to which far more picturesque causes have been assigned. It may seem cold and unromantic to learn that the pre-dynastic Egyptian was preserved by the hot sand of his shallow grave, and not by artificial embalming at all; and that his disordered bones are the results of the visits of plunderers in search of his buried pots and beads, and are not the outcome of fantastic cannibalism or quaint ceremony. But, after all, the science of Egyptology will not lose by the exchange of some of its cherished romances for the matter of fact and truer findings of this more exact investigation. It is not only the Egyptologist who may find interest in this report, for much of its matter appeals to the pathologist and the surgeon, and still more to the anthropologist and anatomist.

THEODOR SCHWANN.[1]

ON Dec. 7th, 1810, there was born at the old city of Neuss, on the left bank of the Rhine, Theodor Schwann, whose name is imperishably written in the history of biology as the founder of the cellular conception of living organisms—a conception which, developed as it was later by Virchow, has done so much to advance our knowledge of living organisms both in health and disease. Schwann studied in Bonn, Würzburg, and Berlin. At the last-mentioned place he came under the influence of Johannes Müller, and he was afterwards for five years assistant in the Berlin Anatomical Institute. During this time he was very closely associated with Müller and with Jacob Henle, and also during part of the time with Matthias Jacob Schleiden. His first original work was a thesis for his doctorate on the subject of the respiration of the developing chick within the egg—a research which was carried out at Müller's suggestion. The five years spent at Berlin proved remarkably fertile in research. Schwann investigated the chemistry of gastric digestion, discovering pepsin and its ferment action. He then carried out researches into the phenomena of fermentation and putrefaction. He demonstrated that fermentation and putrefaction were vital manifestations of lowly vegetable organisms and that "spontaneous generation" was not to be accepted. It is worthy of note that this achievement of Schwann has always been credited to him, while his anticipation of certain of Pasteur's work has been overlooked or forgotten. Researches on the power of contraction of muscle fibres, on the elastic tissue of the arterial walls and other organs followed. He studied the structure of striated and non-striated muscle, and also that of nerve fibres, as the sheath which is called after him still serves to recall. His greatest work was, however, the book published in March, 1839, on "Microscopical Researches into the Agreement in the Structure and Growth of Animals and Plants," an octavo volume of 270 pages, with four copper plates. In 1839 he was called to the Catholic University of Louvain to fill the chair left vacant by the early death of K. J. Windischmann. Afterwards he was called to the University of Liége, and for 40 years he worked in Belgium, though during this period only one scientific work of any magnitude was published by him, as he appears to have devoted his time to the teaching of anatomy, physiology, and comparative anatomy. He died on Jan. 11th, 1882, while on a visit to his brother at Cologne. Schwann's great work in regard to the cellular conception of animal tissues is often wrongly interpreted. It is usually stated that Schleiden discovered plant cells and Schwann those of animal tissues. Certain cell forms had been described before either of these investigators brought forward their results. Müller had described the cells of the notochord and of cartilage, and Henle the epithelial cells on free surfaces. Schwann multiplied these instances and then elaborated Schleiden's view of vegetable cells developed around the nucleus to a general morphological conception of the cellular structure of the whole animal organism. He also enlarged and modified the conception of the cell, and recognised the importance of the nucleus as an essential in its structure. The organism as a whole was thus to be regarded as an aggregate of morphologically similar and equivalent cells. It was therefore no longer possible to speak of a basic vital force within the organism, and Schwann's work gave the final blow to the theory of vitalism. During the decade after the publication of his book the researches of Purkinje, Kölliker, and Remak established the general truth of Schwann's view, while bringing to light fresh facts requiring modification in the conception of cellular structure. The fundamental nature of the cell in biology is now so elementary a fact, and the study of cytology has advanced to such a degree, that it is a little difficult to realise that its discovery is so comparatively modern. The centenary of Schwann's birth should be of interest to all who have studied the history of medicine, for his work was truly epoch-marking.

[1] Abstracted from an article in the Münchener Medizinische Wochenschrift, Dec. 20th, 1910, p. 2703.

SHUTTLE-KISSING.

THOSE of our readers who can carry their minds back to the literature of childhood will remember the story told by the Brothers Grimm in their collection of folk tales concerning the three ugly fairy godmothers. One of these is described as having the appearance of suffering from what would now be known as acromegaly, and when asked why her under lip was so large she replied, "From licking the thread." Weaving is one of the industrial processes which have not changed except in a few details from the prehistoric times of the first weavers, and as a proof of this we note that an acute controversy is going on in the north of England textile districts as to certain diseases arising from what is known as "shuttle-kissing." This practice is due to the fact that the end of the weft thread has to be passed through a hole in the side of the shuttle, exactly as an ordinary sewing thread is passed through the eye of a needle, and the manner of doing this is for the weaver to apply his lips to the hole and in that way to suck the end of the thread through. This sucking is sometimes done by the weaver himself and sometimes by his "tenter," or assistant. It is obvious that in case either of the operatives is suffering from tuberculosis or possibly some other infectious disease, such infection may easily be conveyed by the medium of the shuttle from the one to the other. More than this, the yarn as wound on the bobbin which rests in the shuttle is covered with fluff, which accumulates in the eye of the shuttle and is inspired when the end of the thread is sucked through, thus setting up pulmonary irritation; and in addition to the irritation caused by the fluff the weft is stated to be treated with china clay and sizing, the latter containing poisonous substances, and particles of both are inhaled in the same way. In the case of coloured fabrics the dyes are an additional source of danger. At first sight it seems as though there should be no difficulty in applying some mechanical contrivance for making the end of the thread pass through the eye, but in alterations in any industrial mechanical process there are two factors which must be taken into account: one, the opposition of the masters, and two, the opposition of the workers. Anything which necessitates increased expenditure or impedes the

rapidity of the process has a tendency to lessen production and so to decrease wages, and such are the difficulties which stand in the way of alteration. Apparently, however, two Preston inventors—Dr. H. A. Murphy of Fulwood and Mr. J. T. Simpson, the engineer of the Preston tramways—have brought out a machine which obviates the sucking of the end of yarn by the mouth. A detailed description of this machine is not before us, but we gather from an article in the *Cotton Factory Times* of Dec. 23rd, 1910, that it is a pneumatic sucker to which the eye of the shuttle can be applied. A representative of the journal in question saw the machine tried "about eight times and it acted perfectly upon seven occasions." Here, then, may possibly be the solution of the problem. If the use of this machine, after its virtues have been confirmed, were made compulsory in all mills within a reasonable time-limit—say, two years (for we learn that that period is the life of a shuttle)—supposing that any alteration in the present style of shuttle had to be made, neither masters nor workmen could complain of any serious grievance, if, indeed, of any at all. The initial cost of setting up the apparatus would not, we understand, be heavy, and it is asserted that it does not in any way lessen the rapidity of production.

THE BACTERIOLOGICAL STANDARDISATION OF DISINFECTANTS.

IN the January number of the *Journal of Infectious Diseases* two members of the United States Public Health and Marine Hospital Service, Dr. John F. Anderson and Dr. Thomas B. McClintic, describe "a method for the bacteriological standardisation of disinfectants," a method they recommend on the ground that "there is no question but that great fraud is practised in the exploitation of many of the so-called disinfectants that are offered for sale upon the market and are constantly being used by the credulous public. ..... Even physicians and health officers are frequently imposed upon by the manufacturers or vendors of so-called disinfectants or germicides." As the result of experience of the various methods of testing antiseptics, they, as others who have worked at this subject, are not satisfied wholly with the Rideal-Walker method, which was designed to meet the need of standardisation, even when used under proper conditions as to temperature, organisms, media, &c., as only approximately constant results are obtained by different workers familiar with the technique, considerable dexterity, which can only be obtained by practice, being necessary to obtain these results. They point out that far too great latitude is given in so far that the operator, they believe, can arbitrarily select the result that will most advantageously suit the purpose of the experiment, and this without in any way departing from a strictly honest statement of the results. These observers approve of certain modifications made by THE LANCET Commission, and state that "the Lancet method, on the whole, seems to be a distinct advance over the Rideal-Walker, but, nevertheless, it appears to have certain rather serious faults." One of these faults, the lack of a standard scale for making dilutions, has already been corrected in practice. It was, indeed, an obvious fault as soon as the whole of the material collected by the Commission was considered. The second fault is the use of the bacillus coli communis as a test organism involving the use of special media for subcultures. They object also to the use of special apparatus, particularly the spoons, and recommend the use of pipettes graduated in tenths of a cubic centimetre. Those who have used the spoons and special apparatus are satisfied that with very little practice quantities as accurately measured as those to be obtained with a pipette so graduated can be obtained. However, that is a matter of minor importance, and we are glad to find this question of standardisation being taken up with such energy and by such competent workers. The conclusions of these workers are interesting: "However, notwithstanding the objections noted, we believe the Lancet method to be a distinct improvement over any other that has been proposed up to this time, and that with it constant results can be obtained by different workers. After doing considerable work with both the Rideal-Walker and the Lancet method, we came to the conclusion that, on account of the great variation in results that may be obtained with the former method, it was not a method to advise for the examination of disinfectants. While consistent results can be obtained with the Lancet method, we believe, on account of the objections we have stated in the discussion of that method, that this method can be so modified as to greatly increase its usefulness. With this object in view, we have taken up in detail each step and factor concerned in the successful carrying out of the test, and propose the following method, to be described later for the determination of the germicidal efficiency of disinfectants as compared with pure phenol. In proposing this method we desire to make full acknowledgment of our use of the Rideal-Walker and the Lancet methods, especially the latter, as a basis for our work." The factors involved in the examination of disinfectants by these observers are the following: A 24-hour culture of bacillus coli is used; the experiments are always carried out at a temperature of 20° C.; the proportion of culture to disinfectant is 0·1 cubic centimetre of culture to 5 cubic centimetres of disinfectant; the amount of inoculation into subculture tubes is measured by loops instead of by spoons; the medium for subculture is prepared from beef extract according to the American standard and has a reaction of + 1·5, the titration being carried to a point where the pink colour is distinctly perceptible; instead of the wheel a block containing four or six grooves is used. Other minor details are given, including a table of dilutions. Finally they carry out experiments from 2½ to 15 minutes, and state that in determining the co-efficient "after a large number of experiments we have concluded that the method employed by the Lancet Commission, with certain modifications, is the best one for determining the co-efficient—i.e., the mean between the strength and time co-efficients." The whole question has been approached in a very fair and open-minded manner and we welcome the criticisms of our work.

WORKMEN'S COMPENSATION.

A THOUGHTFUL and suggestive article on the medical aspect of workmen's compensation was published in the *Times* of Dec. 29th, 1910. It is obviously the outcome of a wide experience of this difficult problem, and is well worth careful consideration. The writer maintains that while the principle of the compensation of workmen for accidents is now too firmly established to permit of any change except in the way of further extension, the matter cannot long continue in its present developmental stage. He proceeds to point out a number of directions in which improvement is possible both from the standpoint of the employer and of the workman. He affirms that the medical question is the key to the whole subject, a view from which there would be few to dissent. He then discusses four points which he regards as essential to the proper management of compensation cases—viz., efficient diagnosis, treatment which should be adequate and continuous, the provision of certain accessories of treatment which the workman may be unable to secure, and a mechanism for dealing with permanent or chronic cases. In regard to diagnosis, the suggestion is made that the injured man should be examined by a well-trained surgeon or at a hospital as soon as possible, and that certificates of his state should be obtainable both by the employer and himself. It is probable that this would prevent many doubtful

claims, and that it would exclude many cases of gross disease present at the time of the accident which under the present system are often made the subject of claims as resulting from the accident. The writer of the article is very insistent in urging the importance of immediate treatment, since he believes that many cases of comparatively trifling injury are greatly prolonged owing to defective treatment from ignorance, carelessness, semi-starvation, or even from deliberate neglect of treatment in order to secure greater compensation. He is of opinion that if the employer were compelled to provide efficient treatment for injured employees, and they were equally compelled to submit to it, there would be a decided diminution in the sums paid for compensation. The provision of accessories of treatment, such as apparatus, change of air, and good feeding, it is possible might be met by the establishment of some special fund. A useful suggestion is also made in regard to the chronic or permanently damaged cases—namely, that operative and other treatment should be made available if this is likely to lessen or remove the disability from which the injured man suffers. Lastly, it is urged that the crippled workman should be educated and trained so as to utilise his remaining faculties to some useful and productive purpose, so that he may again become partly or wholly self-supporting. The writer of the article does not claim that his suggestions are yet necessarily within the realm of practical politics, but they are certainly well worth discussion. There can be no doubt that the present system is far from satisfactory, that it tends to encourage malingering, and by its tardy methods is a fruitful cause of neurasthenia and of what has been euphemistically called ergophobia. In any modification it is only fair that the position of the employer should be taken into consideration as well as that of the workman, and the suggestion to which brief reference is made in the article under consideration, that the workman might also contribute to an insurance fund, is one which ought to be carefully weighed, more especially if the employer is made responsible for treatment as well as for compensation.

"THE CHEMISTRY, PHYSIOLOGY, AND ÆSTHETICS OF A CUP OF TEA."

UNDER the above title we publish this week a special article which throws a new light, we think, upon the chemistry of tea. In an experimental inquiry which has occupied the attention of our Laboratory Commissioners for some months an interesting relationship appears to exist between the chemistry of the cup of tea and the views of the expert taster in regard to the quality of the tea used in making the infusion. Until now chemical analysis of tea has been directed to a mere determination of the amount of caffeine and tannin present in the tea, without regard to the question of their probable existence in a state of combination. The work in our laboratory shows that a strong affinity exists between caffeine and tannin, and that probably the good tea, classed as such by the expert taster, is good because the caffeine and tannin occur together as a definite neutral compound, practically neither caffeine nor tannin being present in the free state. On the other hand, the cheaper commoner classes of tea, according to the expert's category, did not in the experiments we record show evidence of this equilibrium being preserved between the two substances, one or the other being in excess. In the common tea it appears probable that the bitterness of free caffeine is evident to the taster's palate, or the astringency of the free tannin, as the case may be. The good tea is classed as such because there is a definite balance of the two constituents, which, when present in certain proportions which satisfy the requirements of chemical affinity, prove satisfactory to the palate. The probability is that this balance is also of physiological importance, since free caffeine is a poison and free tannin an astringent. Tannin is well known to form insoluble compounds with alkaloids, of which caffeine is one, and it is conceivable that in tea the tannin favourably modifies the effect of this alkaloid. Caffeine in its turn practically negatives the astringent action of the tannin; caffeine tannate, at any rate, is useless for the purposes of an astringent. It would therefore appear that when the taster decides upon the quality of a sample (apart altogether from its flavour) he is guided largely by the fact that in a good tea the caffeine and tannin are present in proportions which mutually extinguish the bad qualities of each other, and these bad qualities refer not only to taste but to physiological effect.

THE MEDICAL LANGUAGE OF THE THIRD GOSPEL.

THERE may be doubt as to the authorship of the Third Gospel—for what limits can be put to the scepticism of the "higher critic," especially if he be a German?—but there can be none at all as to the medical language that gives character to its style. The great exegetes of the eighteenth century, Bengel and Wetstein, were convinced that only a physician, or one trained for the profession, could have written it, and that conviction gained in strength till 1882, when Dr. Hobart of Dublin collected and reinforced the evidence in a special treatise, which would have been still more convincing had he, in citing his authorities, used the recensions of Littré and Ermerins, instead of the uncritical text of Kühn. Since then "the question has increased rather than diminished in interest," to quote from a treatise in which it has just been re-discussed,[1] and settled on the traditional lines; settled, moreover, in terms not less emphatic than those of the great German theologian Dr. Harnack: "I subscribe to the words of Zahn [an equally sound authority] that Hobart has proved for everyone, for whom anything can be proved, that the author [of the Third Gospel] was a man acquainted with the technical language of Greek medicine—in fact, a Greek physician." And what is true of the Third Gospel is also true of the Acts, written, as this latter book undoubtedly was, by the same hand. In the "We" sections Dr. Knowling finds, with Dr. Harnack, the same medical language as in the rest of the Acts. Let us take the famous passage (xxviii., 8–10): "And it was so that the father of Publius lay sick of fever and dysentery; unto whom Paul entered in and prayed and laying his hands on him healed him (*ἰάσατο*). And when this was done, the rest also which had diseases in the island came and were cured, who also honoured *us* with many honours." Two points are noteworthy in this passage, first, as indicated by Sir W. M. Ramsay, the word "cured" should be replaced by "received medical treatment" (*ἐθεραπεύοντο*), the latter Greek word being in contrast to the former (*ἰάσατο*) and in keeping with the careful use of medical terms in the passage; second, the contrast between St. Paul's healing power and the physician's modest description of his own medical attention to his numerous patients from all parts of the island justifies the same scholar, with Dr. Harnack, Dr. Zahn, and Dr. Knowling, in rejecting the supposition that only prayer, and not professional treatment as a means of healing, was employed. Dr. Knowling discusses many other points as to the language of the Third Gospel, the author of which, as also of Acts, he holds to have been

[1] Messianic Interpretation and Other Studies. By R. J. Knowling, D.D. London: Society for Promoting Christian Knowledge. 1 vol. 1910. Price 3s.

incontestably St. Luke. Replying to the recent criticism of Dr. Clemen, an able German theologian, that "a Greek physician would not have been likely to describe Herod Agrippa as being 'eaten of worms,'" he reinforces the traditional view by the high authority of Professor Macalister, who maintains that the disease in question, as affecting Herod Agrippa, "was a sudden and fatal seizure of some abdominal complaint, accompanied with intense agony and in some way connected with worms," while Sir J. Risdon Bennett surmised that it was acute peritonitis due to perforation of the bowel by a worm—"a rare but not impossible condition." Of these two interpretations Dr. Knowling rightly attaches more weight to that of the Cambridge anatomist, who further points out that σκωληκόβρωτος (eaten of worms) is found in Theophrastus, and that in ancient times such cases as that of Antiochus Epiphanes (II. Maccabees ix., 9) were common enough when injuries were neglected, a view supported by reference to Josephus (Ant. xvii., 6, 5). Another interesting comment of Dr. Knowling is that the "first aid" applied by the Good Samaritan to the man maltreated by brigands was practice quite in keeping with the therapeutics of the first and second centuries, to which he might have added that the "pouring on" (not, as mistranslated in the Authorised Version, "pouring in") of oil and wine after the bandage had been applied was *motivé* by the need of keeping the bandage from stiffening (hence the oil) and of stimulating the anæmic parts (hence the wine). In fact, as indicated by the late Dean Alford, a paste, mainly compounded of these two ingredients, was in medical use in the second century. Dr. Knowling's essay is an able and scholarly vindication of what few but those devoid of what William James calls the "will to believe" will now venture to gainsay—that to a practising physician in the mercantile marine of the Levant, whose name was Luke, must be ascribed the Third Gospel, which, according to Renan, is the loveliest book ever written, and also of the Acts, which Sir W. M. Ramsay esteems for its historical merit as in every sense a masterpiece.

OCULAR PARALYSIS IN INTRACRANIAL TUMOUR.

IT has long been recognised that in cases of intracranial tumour weakness of one or both sixth nerves—sometimes even of the third pair—may be present in cases in which there is no reason to suppose that these nerves are directly involved in the growth. The usual explanation that has been offered is that the sixth nerves, on account of their long course and exposed position, are particularly liable to have their functions interfered with either by pressure against the bone or by œdema. The same explanation would be applicable to interference with the functions of the third pair, only in such cases a greater degree of pressure would have to be assumed than is necessary to induce interference with the functions of the sixth nerves. Collier has suggested that the antero-posterior course of the sixth nerves may render them more vulnerable by the pushing back of the brain stem, which is shown in so many cases by the protrusion of the medulla, and even by part of the cerebellum, through the foramen magnum, when the intracranial pressure has been excessive. In the last number of *Brain* Dr. Harvey Cushing makes a valuable and suggestive contribution to the elucidation of this point, and as a result of a series of anatomical and pathological studies he submits the view that in certain cases at least the interference with the function of the sixth nerves, especially in cases of intracranial tumour, may be due to strangulation of these nerves by transverse branches of the basilar artery. In support of this view he finds that these arteries, contrary to the usual anatomical description, usually overlie the nerves, that in a series of cases of intracranial tumour the vessels which normally encircle the brain stem often produce a more or less deep grooving of the nervous tissues, that the sixth nerves in many such cases are deeply constricted, and that in a large percentage of cases in which there is found post-mortem grooving of the pons with implication of the nerves, there was recorded during life either subjective diplopia or the actual presence of a convergent squint.

THE CURRICULUM OF THE MEDICAL STUDENT.

WE publish this week a full report of an important speech made by Sir Henry Morris on the closing day of the winter session of the General Medical Council. An abstract of the speech was published in our columns on Dec. 3rd (p. 1626), but we are glad to place Sir Henry Morris's words before our readers in complete form because the importance of the questions raised is very great, because the solution of these questions is very difficult, and because in our opinion that solution should be no longer delayed. The bald outline of the situation is this. The medical curriculum is overcrowded, so that an unduly small number of candidates for medical qualification are able to obtain registration in the statutory time of five years. Sir Henry Morris, to meet this situation, proposes that the preliminary scientific studies should be pursued by the students at their schools, leaving the five years medical curriculum free for the study of the strictly professional subjects—anatomy, physiology, and medicine in its various branches. One of the strongest points in Sir Henry Morris's arguments is undoubtedly the fact that registration of the medical student is not a compulsory process, so that the General Medical Council has not that complete control over the students' curriculum which some of its published words claim for it. The General Medical Council, on the other hand, holds that, as the supreme authority, under the Privy Council, over the medical education of the student, it cannot willingly sanction any part of medical education being undertaken save under its control. The growing importance in the eyes of headmasters of the scientific training of the schoolboy indicates that much educational and parental feeling will be with Sir Henry Morris in his contention, but those opposed to his view believe, among other things, that the scientific facilities offered by the public schools are not yet as a rule sufficient. These are just the sort of questions that medical men want to see debated, and not only debated but settled, by the General Medical Council.

FACTORY AND WORKSHOP ACT (1907) IN RELATION TO POOR-LAW ESTABLISHMENTS.

AN arrangement has been made between the Local Government Board and the Home Office with regard to the inspection by inspectors of factories of certain portions of workhouses and other Poor-law establishments. Any laundry or workshop where industrial work is carried on or machinery used, attached to any Poor-law institution, may under the new regulations be inspected by the inspector of factories in charge of the district in which the institution is situated, who will report through the Home Office to the Local Government Board on any point that, in his opinion, requires attention. Where only inmates are employed the factory inspector will report only on the ventilation of the workshop or laundry, the fencing of machinery, the use of dangerous plant or materials, the carrying away of fumes, steam, or dust, and similar matters. Where paid hands, as well as inmates, are employed, the inspector will report on the hours of labour of the paid hands, persons employed only for purposes of supervision or instruction not being regarded as

paid hands. The Local Government Board thinks it very desirable that the factory inspector should, on his visit to a Poor-law institution, be accompanied during his inspection by the master or principal officer in charge, who should afford him every information and assistance, and show him every part of the laundry or workshop in respect of which the visit is made. Where any accident (fatal or other) caused by machinery, explosion, or electricity, or any case of industrial poisoning occurs in any such laundry or workshop, particulars should at once be sent to the factory inspector. Notice should at once be furnished to the factory inspector of the installation of any new machinery in the institution. The new arrangement is obviously most sensible in itself, while it indicates the sound tendency, now existing, towards a more intimate working together of our different Government departments.

INQUESTS AND DEATHS DURING ANÆSTHESIA.

AT an inquest held on Dec. 12th, 1910, upon a woman who died whilst under an anæsthetic, the coroner, Dr. F. J. Waldo, took the opportunity of explaining his position in holding inquests upon such cases, and invited the opinion of a medical witness on this and other points. As the whole question has been so lately and so thoroughly discussed before the Departmental Committee appointed by the Home Office, whose findings our readers have had the opportunity of perusing, we do not propose to go at length into the matter on this occasion. One or two comments, however, we are minded to pass, in addition to the remarks of the coroner and house surgeon, and especially because the latter offered the opinion, new to us, that the medical press showed insufficient interest in cases of deaths under anæsthetics. We think this is an opinion difficult to arrive at, while it must not be forgotten that the medical press depends to some extent, if its reports are to be quite accurate, for the account of such cases upon the medical men concerned. If the accounts are not forthcoming so freely as the witness in this case appears to desire, then the medical press is necessarily more reticent. Suppression of any such account when it is obviously of scientific or professional interest, is, at any rate so far as THE LANCET is concerned, an unknown event. We do not feel called upon, like the daily press, to narrate the mere occurrence of these deaths. The cases have no value or interest for medical men unless accurate details are supplied. In the lay accounts these are, of course, always wanting. It is of no scientific value to know that on such and such a date a woman died whilst taking ether for an abdominal operation. Such a statement is little more instructive than one to the effect that on another occasion a man took chloroform for an abdominal operation and did not die. But if accurate details as to the time the operation had lasted, exactly what had been done, how the pulse and respiration were acting for some time before the fatal seizure, what loss of blood there had been, how much anæsthetic had been inhaled and how it was administered, and so on, were provided, then the testimony given at coroners' inquests might have some scientific value, and the medical press might find it its duty to report many of the cases. Indeed, it is one of the changes hoped for as a result of the departmental inquiry that in some way the scientific facts associated with every death during anæsthesia may be so collated that a mass of evidence will accrue which will really help future knowledge, instead of, as at present, an inquiry taking place which from the scientific standpoint is valueless. The value of publicity, as making medical men most careful to avoid any conceivable accident, and the danger of publicity, as frightening those who have to undergo operation and who have read of deaths during anæsthesia, were also discussed by the coroner and his witness. Neither of them, however, pointed out what appears to be almost the only merit of the present inquiries—viz., that they safeguard hospitals against the suspicion that would probably exist of them in the minds of the ignorant. Were no such inquiries held the ignorant would often imagine that they were put to the risk of being "experimented upon" in hospitals. Some inquiries are necessary, though the coroner's court is usually an unsuitable tribunal for them.

THE second Hunterian Society's lecture will be delivered at the London Institution, Finsbury-circus, E.C., on Wednesday next, Jan. 11th, at 8 30 P.M., by Mr. D'Arcy Power, on "Loose Cartilages and the Results of their Surgical Treatment." All members of the medical profession are invited to attend.

SEVERAL City Companies and firms, recognising the great value of the public work done by the Royal Society of Medicine, have made grants in aid of the building fund which is being raised by the Fellows to supply the society with a new house.

THE CHEMISTRY, PHYSIOLOGY, AND ÆSTHETICS OF A CUP OF TEA.[1]

ULTIMATE *v.* PROXIMATE ANALYSIS OF TEA INFUSION.

CHEMISTRY is not always able to offer a satisfactory explanation of the æsthetic quality of an article. It is doubtful, for example, whether chemical analysis could show any appreciable difference between a good and a bad tobacco, but the æsthetic difference is easy enough to discern. Again, analysis of an elegant château wine reveals comparatively no explanation based on a chemical conception for its refinements; *vin ordinaire*, though very inferior to the palate, shows much the same results on chemical analysis as (say) Château Lafite. The case is the same with tea. Tea apparently is not judged by its chemical qualities, but by its practical qualities, which are determined by the expert tea-taster. In addition to examining the appearance and condition of the leaf he studies very carefully the characteristics of the infusion, its strength or astringency, its flavour, its colour, and its odour. His judgment decides the commercial value of the tea, but whether this judgment means that his valuation is in the economical and physiological interests of the consumer does not appear to have received any extended study.

In most of the chemical literature on the subject it is freely conceded that while a chemical analysis will indicate the strength but not the flavour of the infusion, it is of little use in the valuation of high-priced teas, and this conclusion is drawn in spite of the fact that many thousands of analyses of tea have been made. In the present article we shall attempt to indicate that a very interesting agreement does appear to exist between certain points in the chemical analysis of a tea and the views of the expert tea-taster, provided that the chemical analysis is directed not so much to the percentage amounts of the constituents present as to the relations of these constituents to each other. The question has not been satisfactorily cleared up as to whether these constituents exist in a state of combination, but, if so, it is interesting to ask what are the compounds. What is indicated, therefore, is a proximate rather than an ultimate analysis. To draw an analogy, we have not been content to know merely that there is sodium and that there is chlorine in the sea: we go further, and have found out that these elements are combined in definite quantities to form common salt. Can something of this accuracy be arrived at in respect of tea?

THE COMMON ACCEPTANCE OF INJURIOUS SUBSTANCES IN TEA.

Undoubtedly the important constituents of tea, as everyone knows, are the alkaloid caffeine (or theine) and tannin. Both, from the physiological point of view, are drugs, the

[1] A contribution from THE LANCET Laboratory.

pharmacology of which is well known, but tannin is generally more unfavourably regarded than caffeine. Tannin, in fact, is commonly looked upon as the source of mischief in excessive tea-drinking. Text-books frequently state that when the tannic acid which tea contains occurs in large quantities, the pepsin of the gastric juice is precipitated, and that this is one of the reasons why tea is not a suitable beverage for persons suffering from gastric disturbances, while among the more prominent symptoms of excessive tea-drinking are gastric disorders, cardiac distress, and a variety of nervous symptoms, such as excitability, sleeplessness, and muscular incoördination. It is a remarkable commentary upon the disfavour with which tannin in tea is looked upon that some of the finest teas (from the tea expert's point of view) upon the market and commanding high prices are just those which contain the largest amount of tannin. A cheap Ceylon tea, for example, was found to yield 5·46 per cent. of tannin in the cup, while a high-priced Ceylon tea showed 7·56 per cent. of tannin. Similarly, a cheap Indian tea gave 5·88 per cent. of tannin to the infusion, and a high-priced Indian tea gave 10 per cent. of tannin, the teas in each case being prepared under analogous conditions. It is again an interesting commentary on the bad name which is given to tannin in tea that a dose of red wine contains more tannin than does a dose of tea. Half a pint of claret, for example, contains on the average 10 grains of tannin, while a cup of tea made with a teaspoonful of leaf (average 60 grains) would contain 6 grains only of tannin. Some teas would, however, yield only half this quantity of tannin in the cup. Tannin in wines, moreover, is in the free active state, in tea it is neutral or fixed. All infusions of tea are alkaline, and they are incapable in that state of acting as a tanning agent. Good teas do not precipitate proteins, nor will they make leather, as is so popularly assumed, the fact being that the tannin in tea is engaged in other directions—an engagement from which it is difficult to divert it. To resume our analogy with which we started, we do not expect common salt solution to have bleaching properties on account of the chlorine contained in it, for we know that the attention of the chlorine is confined completely to the sodium. In the same way the tannin in most teas is engaged, and so rendered inoperative as an astringent or tanning material.

Evidence of Caffeine and Tannin Existing as a Compound in Tea.

When a warm tea infusion is just acidified with a weak solution of hydrochloric acid the colour of the infusion changes from the well-known reddish-brown to a much lighter colour. At the same time a flocculent precipitate is formed which increases in quantity as the infusion is cooled. The amount of precipitate collected varies with different teas, the China teas yielding the least and the Indian teas the most. The precipitate proves to contain, amongst other things, tannin and caffeine, and, whatever kind of tea is employed, a ratio of 1 to 3 of caffeine to tannin is generally found, which indicates that there is present a real caffeine tannate, having perhaps a formula approximating to the following:—

$C_8H_{10}N_4O_2$ (Caffeine.) $C_{20}H_{20}O_9$ (Quercitannic acid.)

This experiment points distinctly in favour of the conclusion that an infusion of tea is essentially a solution of caffeine tannate in an alkaline medium. When the alkaline salt present in tea is neutralised by the addition of a weak acid, caffeine tannate is gradually thrown out, this substance being only slightly soluble in cold, but readily soluble in hot, water. Now, an infusion of tea as soon as it reaches the acid contents of the stomach would undergo a similar change—that is to say, the human organism is then dealing with a fluid containing part of its caffeine tannate in suspension and part in solution. As will be presently pointed out, this is an important finding, for it indicates that we may not be dealing with either caffeine or tannin in the free state in tea at all. At all events, we have never found in teas classed as of good quality by the tea expert an excess of free tannin or free caffeine. We have, however, found in teas classed as common or indifferent caffeine and tannin dissociated from each other. The foregoing simple experiment suggests, therefore, that the quality of a tea may rest on the question as to whether its constituents are balanced.

The Estimation of Caffeine Tannate in Tea.

Considerable difficulty was found in hitting off an analytical method which would successfully separate the whole of the caffeine tannate of the tea infusion as such, so that it could be submitted to independent examination; but after some months' experiments a method was obtained which gave very instructive results. It consisted shortly in saturating the infusion with ammonium sulphate, which completely separates the caffeine tannate, which may then be dissolved in absolute alcohol, the alcohol evaporated to dryness, the residue weighed and further examined as to the proportions of caffeine and tannin it contained. (Free tannin itself is soluble in a saturated solution of ammonium sulphate.) In Table A we give the results obtained with various teas when examined by this method.

TABLE A.—*The proportion of Caffeine Tannate in various Tea Infusions and the Composition of the Tannate.*

Description of tea.	Caffeine tannate or ammonium sulphate precipitate after dissolving in alcohol.	Caffeine found in precipitate.	Tannin found in precipitate.	Approximate ratio of caffeine to tannin in precipitate.
	%	%	%	
China.	6·00	1·44	4·56	1 to 3
China.	6·80	1·72	5·08	,,
Indian.	6·52	1·64	4·88	,,
Ceylon.	4·48	1·12	3·36	,,
Indian.	10·20	2·60	7·60	,,

It would appear from this table that in tea we are dealing with a definite compound of caffeine and tannin, for although different types of teas were examined, yet the same caffeine-tannin compound was obtained, showing always a constant ratio (1 to 3) of caffeine to tannin. Caffeine tannate is thus probably a definite body, but it does not follow that the whole of the tannin or of the caffeine present in tea infusion is necessarily combined with one or the other, as the case may be. Part certainly is, and in some cases, as will presently be shown, the whole of the caffeine and tannin is united.

Caffeine Tannate Prepared in the Laboratory.

The next step indicated was to prepare caffeine tannate in the laboratory and to estimate the proportion of the two constituents in the compound. This was done, and the results gave support to the idea that caffeine and tannin form a definite compound containing 1 part by weight of the former, combined with 3 parts by weight of the latter.

Solutions respectively of caffeine and tannin were prepared, each containing 1 per cent. of the pure substance. It is obvious that if 1 part of caffeine combines with 3 parts of tannin to form a compound, 1 volume of the above caffeine solution when added to 3 volumes of the tannin solution should give this compound with neither caffeine nor tannin in excess. A better test, however, would be in the one case to add an excess of caffeine in the mixture and in the other an excess of tannin, and determine in each case what the excess of free substance was. The first experiment consisted in adding 3 cubic centimetres of a 1 per cent. solution of caffeine to 30 cubic centimetres of tannin solution (1 per cent.). A milky fluid resulted which cleared up on heating; it was evaporated to dryness on an inert distributing surface, kieselguhr, and the residue was extracted with ethyl acetate. The ethyl acetate extracted 0·210 gramme of tannin out of 0·30 gramme added, leaving a difference of 0·09 tannin combined with the caffeine. The caffeine added was 0·03 (3 cubic centimetres of a 1 per cent. solution). Thus there was formed a residue containing 1 of caffeine to 3 of tannin. In another experiment it was found that 30 cubic centimetres of tannin solution (1 per cent.) required exactly 19·2 cubic centimetres of N/10 caustic soda to neutralise it, using phenol-phthalein as indicator. When, however, 3 cubic centimetres of a 1 per cent. solution of caffeine was added, the mixture required 14·4 cubic centimetres of N/10 caustic soda for neutralisation. The difference, 4·8 cubic centimetres, represents the amount of tannin which had combined with the 3 cubic centimetres of caffeine solution added (= 0·03). By calculation it was found that 4·8 cubic centimetres of N/10 caustic soda represent 9 cubic centimetres of the tannin (1 per cent.) solution (= 0·09).

and that therefore, again, caffeine had combined with tannin in the proportion of 1 of caffeine to 3 of tannin. This experiment was several times repeated with in each case the same result. Moreover, in some experiments the prepared caffeine tannate was split up by lead oxide and the caffeine separated and weighed. The tannin was estimated by adding dilute sulphuric acid to the lead residue and extracting with ethyl acetate, or determining the tannin after adding an excess of bicarbonate of soda direct by means of a standard iodine solution. Again 1 part of caffeine was found combined with 3 parts of tannin.

Caffeine has a very remarkable affinity for tannin, since in one experiment we found that it will combine with the tannin of leather and reduce it to the soft pulpy condition of untanned hide again, caffeine tannate being found in the solution.

VARIATIONS IN THE AMOUNTS OF CAFFEINE TANNATE IN TEA.

The next question calling for investigation was, to what extent was the caffeine in tea infusion combined with tannin, or the tannin combined with caffeine? As subsequent experiment proved in many teas (curiously enough all those regarded by tea experts as of good quality), it was found that the *total* caffeine and *total* tannin occurred in the ratio of 1 to 3. In many others there was not this balance, caffeine in some cases being in excess, while in others tannin predominated. The conclusion is irresistible that the physiologically best teas are those in which the total caffeine and total tannin occur in the ratio of 1 to 3—in which, in fact, the caffeine is completely neutralised by the tannin or the tannin by the caffeine, and that therefore they are present as caffeine tannate, and neither in the free state.

Since the above results were obtained we have seen a report, issued from the Imperial Institute, in which the analyses of various teas grown in British Central Africa are given. The following are the results in regard to caffeine and tannin:—

	Caffeine.	Tannin.
Tea No. 1	3·68	10·50
,, No. 2	3·35	9·50
,, No. 3	3·08	10·30
,, No. 4	3·54	10·40
,, No. 5	3·19	10·60
,, No. 6	3·22	9·80

It is remarked that "these results show that the samples of tea are of good quality," and in many instances it will be noted that the ratio of caffeine to tannin is very close to 1 to 3.

THE PHYSIOLOGICAL IMPORTANCE OF A CHEMICALLY BALANCED TEA AND THE VIEWS OF THE TEA-TASTER.

Tannin may therefore prove after all a blessing in tea, inasmuch as it keeps the assimilation by the human organism of the heart stimulant, caffeine, under control. Similarly, when the constituents are balanced caffeine may be expected to negative entirely the astringent action of the tannin. On the other hand, an excess of either constituent is clearly to be avoided, as each would then be free to exert its own specific action. The points raised by these considerations are clearly of the utmost physiological importance, and we hope to discuss them more fully later. In the meantime, if it comes to be proved that the best teas, physiologically speaking, are those in which the caffeine and tannin are chemically balanced, that they occur completely absorbed by one another as caffeine tannate in which 1 of caffeine is combined with 3 of tannin, it will be interesting to see how far this view agrees with the judgment of the expert taster. Has what he regards as quality in a tea, and therefore a tea entitled to a high price, anything to do with the balance of caffeine and tannin to which attention has been drawn? It is quite clear that caffeine tannate possesses neither the astringent taste of free tannin nor the bitter flavour of free caffeine. Caffeine and tannin serve, not merely as antidotes to each other on the score of taste, but most probably on more important scores also. Tannin is, for example, a well-known antidote to most of the poisonous alkaloids, and caffeine may be reckoned as one of these. It is a remarkable fact that hitherto the results of the chemical analyses of teas have led to nothing in common between the chemist and the taster. Quality in tea so far has been beyond the reach of the analyst to adjudicate upon. He has said what the amounts of caffeine and tannin are, but these mere statements have thrown no light upon the æsthetic and commercial value and quality of the tea submitted to examination. Distinct hope, however, may come from the theory of balance applied to the caffeine and theine in tea which we have put forward. At all events, there are some interesting points of agreement between the expert tea-taster's view and this theory. In Table B will be found a number of analyses of teas which before they were submitted to analysis were each described by the expert taster in terms regarding their æsthetic quality and commercial value. We may say, at the outset, that in by far the majority of instances we were able to show subsequently that his view of the quality of the tea proved to be based upon the question whether or not that tea contained its tannin and caffeine in balanced quantities. Whenever the tea showed a preponderance either of tannin or caffeine over and above that required by the combination of caffeine 1 and tannin 3 his verdict was invariably "a common tea" or "an indifferent tea." When, on the other hand, there was neither caffeine nor tannin present in quantity exceeding what the compound of them contains (caffeine tannate), then the tea was pronounced as of good quality. In other words, the expert, by his palate and other considerations, says, in effect, the caffeine and tannin in such and such a tea are not balanced, therefore it is not a fine tea, or the caffeine and tannin are present in a combined state and therefore the tea is bland, smooth, and a good one. In the case of an inferior tea he probably tastes either free caffeine, which is bitter, or free tannin, which is astringent, and promptly calls the tea unsuitable. In the case of the fine tea he tastes neither, but a combination of them, which is neither astringent nor bitter. When contrasting chemical results with the skill of the taster a complete concordance can hardly be expected, but Table B shows broadly that the palate of the taster is largely influenced by the chemistry of the tea submitted to his judgment. To go back to the old analogy, common salt has a neutral smooth saline taste, but if either of its constituents is in excess the taste would be repulsive—viz., that of caustic alkali on the one hand, or of a corrosive acid on the other.

On consulting Table B it will be found that, generally speaking, the common (and cheap) teas contain an excess of caffeine over tannin present, but the good teas (high-priced) invariably contain an excess neither of caffeine nor of tannin, these being present in complete combination in the form of caffeine tannate. It is possible that by a careful system of blending these excesses could be to some extent avoided, but we must defer for a later stage the consideration of blending. It is interesting to observe also that proteins increase with the quality of the teas, and as proteins form an insoluble compound with tannin the evidence is thus strengthened in favour of no free active tannin being present in good tea-infusions. It is well-known, also, that teas have to be adapted to the various characteristics of the waters of different neighbourhoods, and it is conceivable that the balance of caffeine and tannin may be disturbed by, for example, chalk, which would tend to combine with tannin and liberate free caffeine. Here, also, the art of blending possibly aims at securing the equilibrium of tannin and caffeine already pointed out, taking into consideration the effect of a hard or soft or peaty water on the soluble constituents of the tea. In this connexion it is interesting to record that the tea-taster has samples of the water of different localities sent to him so that he can decide which tea gives the best result with it. There is only one instance in the Table (B) in which tannin is in serious excess, and that, curiously enough, is green tea, and in addition there is present 1·28 per cent. of caffeine not combined with tannin. *Prima facie* it is doubtful whether tannin is ever an injurious constituent of ordinary teas; it is much more likely that caffeine is the mischief-maker, especially when a considerable portion of that alkaloid does not occur combined with tannin, as is invariably the case with common cheap teas. It is questionable, too, whether the powerful are more injurious than the delicate teas so long as the caffeine and tannin are in balanced quantities—are, so to speak, in physiological equilibrium. The danger of the rich tea (although of good quality) is taking an excess of it, which can, of course, be avoided by using it sparingly, and thereby

TABLE B.—*The Analysis of Teas, with Special Reference to Caffeine Tannate.*

Description of tea.	Prices per lb.	Caffeine tannate.	Tannin combined with caffeine.	Caffeine combined with tannin.	Total tannin.	Total caffeine.	Caffeine not combined with tannin.	Tannin not combined with caffeine.	Extract.	Alkalinity of ash as K_2O.	Protein.
China (common)	Used in blends from 10*d.* to 1/2 (retail).	3·60	2·70	0·90	3·78	2·40	1·50	1·08	22·00	0·96	—
,, ,, ...		3·60	2·70	0·90	3·61	2·12	1·22	0·91	21·20	1·92	0·20
Assam ,, ...		8·00	6·00	2·00	5·79	3·52	1·52	0·21	27·20	2·30	0·90
Ceylon ,, ...		6·32	4·60	1·58	4·60	2·52	0·94	None.	24·80	1·72	0·70
Assam ,, ...		6·60	4·95	1·65	5·88	3·20	1·55	0·93	30·00	1·34	1·00
,, ,, ...		5·80	4·35	1·45	4·62	2·56	1·11	0·27	22·00	1·34	—
,, (good)	Used in blends from 1/4 to 1/8 (retail).	7·88	5·91	1·97	5·88	2·77	0·80	None.	27·00	1·92	1·10
,, ,, ...		9·80	7·35	2·45	7·30	3·40	0·95	,,	32·00	1·53	1·00
Ceylon ,, ...		9·04	6·78	2·26	6·88	2·88	0·62	0·10	30·80	0·76	1·20
China ,, ...	Used in blends from 1/6 upwards (retail).	6·80	5·08	1·72	5·09	2·40	0·68	0·01	24·00	1·34	—
Assam ,, ...		10·20	7·65	2·55	7·60	3·32	0·77	None.	30·00	1·92	1·00
Ceylon ,, ...		10·12	7·59	2·53	7·56	2·60	0·07	,,	34·00	1·72	1·70
Assam ,, ...		15·36	11·53	3·84	11·82	4·00	0·16	0·29	35·20	1·92	1·70
,, ,, ...		10·40	7·80	2·60	7·56	3·00	0·40	None.	30·80	2·11	1·10
Indian ,, ...		9·60	7·20	2·40	7·14	3·20	0·80	,,	28·00	1·53	0·60
Green tea	2/8	5·60	4·20	1·40	8·82	2·68	1·28	4·62	30·00	2·11	—

The above percentage results are based on the use of 5 grammes of tea in 400 cubic centimetres of boiling water, the infusion being poured off after five minutes.

effecting an important domestic economy. So many people seem to disregard the fact that the powerful teas should be employed in quantities consistent with their rich quality. In the above analyses many of the good teas present twice the physiological value of the common teas, although their price may be only 50 per cent. more, if as much. It is illogical, therefore, to adopt the teaspoonful as the standard of measurement for all descriptions of teas; the dose might with advantage be reduced to a decidedly smaller quantity in the case of balanced teas which give a rich infusion. It is commonly asserted that when tea is infused for a long time there is much more tannin dissolved in proportion to the caffeine. That may be true for teas of common quality or cheap teas, but in one experiment we made it does not appear to hold good for a tea of good quality. A good Indian tea, for example, gave on 5 and 15 minutes' infusing respectively the following results:—

	5 minutes (per cent.).	15 minutes (per cent.).
Caffeine tannate	10·40	10·68
Tannin combined with caffeine	7·80	8·73
Caffeine combined with tannin	2·60	2·68

It will be observed that more tannin was extracted but more caffeine was extracted also. In reality, with a good tea more caffeine tannate and not tannin is extracted. The ratio 1 in 3 of caffeine to tannin is, in fact, preserved in the 15 minutes' infusion. The suggestion of this is that it matters little whether a good tea be infused for a longer time, but, of course, a stronger liquor is obtained, which should be diluted or less tea employed. This consideration hinges again on the question of blends, and at the present time we are engaged on further analytical work on the question with the view of ascertaining whether the blender unconsciously aims, after all, at producing the equilibrium of tannin and alkaloid to which we have referred. At the moment it is premature to regard the case which we have put to be absolutely proven, but the investigation so far has certainly brought to light an interesting set of facts based on chemical analysis which show a remarkable agreement with the views of the expert tea-taster. We should expect to find from these results, for example, that when he regarded a tea as one of good quality, the caffeine and tannin would appear practically entirely in the form of a combination, caffeine tannate. In the case of a tea which he puts aside as common or indifferent, we should expect to find that the caffeine present was not in affinity with the tannin. Possibly we are dealing with young tender leaves when the caffeine and tannin are found in equilibrium, and old or coarse leaves when that is not the case. This conclusion is interesting in view of the fact that tannin happens to be an antidote to alkaloids in general, and commonly forms with them substances which are at any rate insoluble in the stomach, though they would be absorbed in the bowel. Is it not possible that the absorption of caffeine is less rapid when it is present with an equivalent of tannin, and that, therefore, the common teas which contain caffeine not in combination with tannin easily lead to theinism, caffeine poisoning? After all, caffeine is a powerful drug, increasing the strength and rapidity of the heart's action and the blood pressure, and it is possible that its potency in this direction is favourably modified when it is exhibited with an exact equivalent of tannin, as is the case with teas passed by the expert as of good quality, "fine," and so forth. Both constituents can behave badly physiologically when in the free state, but when in a mutual combination their vices are lost in the marriage and their virtues come uppermost. That seems to describe the case of a good tea. Tannin cannot "tan" in the presence of an equivalent of caffeine, and the poisonous qualities of caffeine are very probably diminished in intensity when it exists entirely as tannate.

We reserve for future publication further researches on the subject which are proceeding.

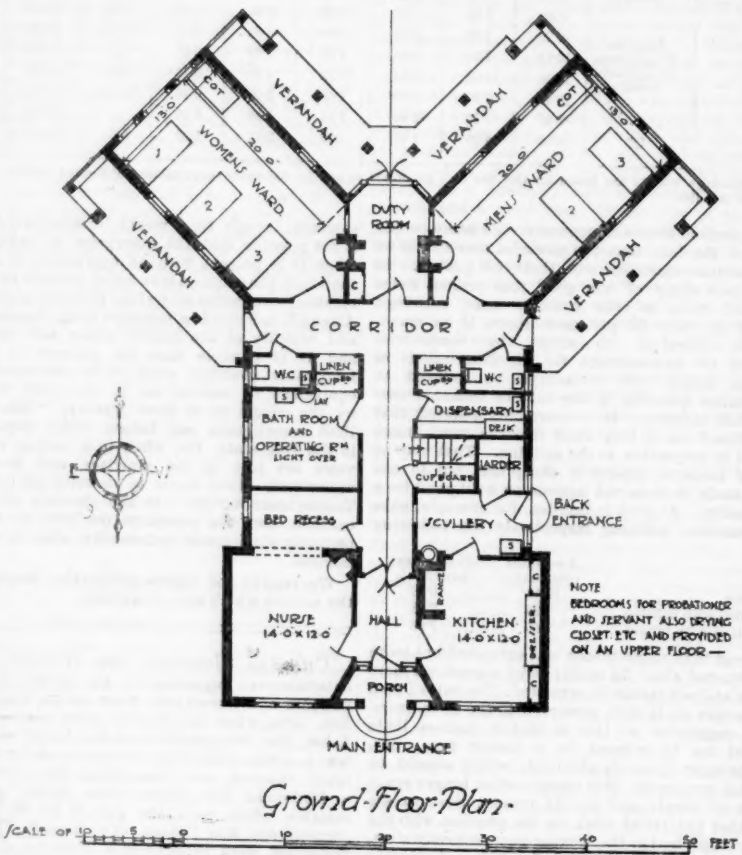
CHELSEA HOSPITAL FOR WOMEN.—The annual entertainment organised by the ladies' committee for the patients and nurses was given at the hospital on Thursday, Dec. 29th, when the visitors were received by Viscountess Esher, the vice-president of the ladies' committee. After tea a clever conjuring entertainment by Mr. Lambert was much enjoyed, and later there was a distribution from a Christmas tree laden with useful presents for the inmates, which were the gift of Dr. W. H. Fenton, senior surgeon, and Mrs. Fenton. On Saturday last the Christmas festivities were brought to a close by a concert arranged by Mr. Michael Fenton with the help of the following: Miss Millie Hall, Miss Barbara Zitzer, Mr. Alec Aris, Mr. Ivan Ayscough, and Mrs. Frank Snow. The work in the wards of the hospital during the past year shows a marked increase, the number of admissions being 870, as compared with 803 for 1909. Provision for those of small means, under conditions which will allow of some privacy of treatment, are features marking this hospital out for charitable support. The treatment of the patients is supplemented by reception at a convalescent home at St. Leonards-on-Sea. The regular income is much in need of increase, and donations and legacies are earnestly solicited towards rebuilding the out-patient department and the nurses' home, the present accommodation being entirely inadequate. Contributions will be gratefully acknowledged by the treasurer, Mr. Henry E. Wright, or the secretary, Mr. Herbert H. Jennings, at the hospital, Fulham-road, S.W.

A WELL-PLANNED COTTAGE HOSPITAL.

THE small cottage hospital at Wells, Norfolk, which has been erected by the Holkham tenantry as a memorial to the late Earl of Leicester, was recently opened by the present Earl. Situated near the seaport town of Wells, this hospital will supply an isolated district of north Norfolk, over 30 miles from the county institution at Norwich, the population of Wells and the neighbouring agricultural villages being about 7000. Inquiries are often made from us as to the best way of meeting the needs for a cottage hospital in just such a community. Mr. Leslie T. Moore, A.R.I.B.A., of Raymond Buildings, Grays Inn, W.C., the architect, sends us a description of the building, of which the illustration shows the general scheme.

The building provides for six adult patients and two cots, and has been erected for the moderate sum of £1000, including the sinking of a well and fencing the site, which was generously given by Lord Leicester. The plan of the building is somewhat original in its outline, being in the shape of the letter "Y," the wards forming the short arms, while the administrative portion of the building forms the stem with main entrance from the north. All the advantages of aspect and cross ventilation are thus gained for the wards, which are 12 feet high and give a cubic capacity of 1000 feet per patient. They are amply ventilated by the large windows in the end gables, in addition to those at the side of each bed. Between the wards a small duty-room is arranged for supervision, from which there is at the same time command of the corridor. Verandahs for convalescent patients are so planned that from whichever direction the wind blows shelter can be obtained. The ground floor throughout is laid with non-absorbent jointless flooring with core skirtings. Internally all mouldings and projections likely to harbour dust and germs have been dispensed with. The wards and corridors have an impervious dado painted white, with washable enamel paint, the whole of the joinery being similarly finished. Over a portion of the building an upper floor provides bedrooms for a probationer and servant, also a drying closet and store-rooms for patients' clothes, &c. Special attention has been given to the sanitary fittings, the best white porcelain enamel fireclay being used throughout. The cubic capacity of the wards as built at Wells is 3600 cubic feet. All the windows to the wards are double hung sashes and are fitted with Dr. Hinkes Bird's patent deep bead at bottom admitting the air between the meeting rails in a vertical direction. The windows to the administrative portion of the building are of the cottage casement type, giving a homely appearance. The transverse corridor with external doors to verandahs at either end forms a "cut off" between the wards and offices. The fires are of the barless slow-combustion type with green glazed fireclay mantles and hearths. The bathroom was especially designed rather larger than necessary and with a top light so that emergency operations could be undertaken. The walling generally is of brick built in cement, the outer walls being 9 inches thick with 3-inch cavity, and Silverlock's method of bond being adopted. The external face of the walling is rough-casted in cement.

In response to our inquiry as to the possibility of effecting economy in the cost of such buildings and the additional expense of enlargement Mr. Moore writes as follows: "Concrete blocks could be substituted with a slight saving in cost if gravel of a suitable nature could be obtained on the site of building, but the advantages of a hollow wall, which are all-important, would be sacrificed. Further economy might be effected if Bridgwater tiles or other patent roofing were adopted in place of the hand-made tiles that were used in this instance. But such roofing would be detrimental to the general appearance of the building. The plan especially adapts itself for future extension of the wards, which could be lengthened and another bed added to each ward for an extra cost of about £125, making four male and four female adult beds and two cots. But any further extension would require larger administrative offices, and would consequently necessitate a greater outlay in proportion."



Cottage Hospital, Holkham, Wells, Norfolk.

A BRAVE MEDICAL MAN.—At Penzance, on Dec. 19th last, Colonel Cornish, on behalf of the Royal National Lifeboat Institution, presented Mr. Richard Coger Lawry, L.R.C.P. Lond., M.R.C.S. Eng., with the certificate of the Royal Humane Society. Mr. Lawry, with two other gentlemen, rescued a bather from drowning off Laregaw, Cornwall, on August 6th, 1910.

Public Health.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On the Sanitary Circumstances and Administration of the County Borough of Middlesbrough, with Special Reference to the Persistently High General Death-rate and Infantile Mortality and their Causes, by Dr. W. W. E. FLETCHER.[1]—In this report Dr. Fletcher gives the results of an elaborate study of the statistics of mortality in Middlesbrough for recent years and of the conditions associated with some unusually high figures which appear characteristic of that town. Middlesbrough is almost entirely inhabited by a working-class population, and has grown rapidly with the development of the industries which resulted from the utilisation of the ironstone in the Cleveland Hills. There are now some 107,000 inhabitants—a population nearly double that of 1881, and more than four times that of 1861. The general death-rate is persistently higher than that of the "great towns" dealt with by the Registrar-General; the mean annual crude death-rate for the 12 years 1896–1907 was 16·5 for the latter and 20·1 for Middlesbrough. The discrepancy becomes greater when corrections are made for the age and sex distribution of the populations. From a detailed analysis of the causes of death in 1907 Dr. Fletcher ascertained that an excessive mortality existed from the "zymotic" group of diseases (notably from diarrhœa and enteric fever) and from pneumonia, while there was also a considerable excess of deaths grouped as due to "diseases of the nervous system" and "atrophy and debility." In the five years 1904–1908, the mean annual death-rate from diarrhœa per 1000 living under one year, was 30·8 for Middlesbrough, as against 8·9 for England and Wales. In reviewing the causes of this excess of diarrhœa the report lays stress upon the frequent inability of mothers to suckle their infants owing to insufficiency of food and upon the use of tinned separated milk in baby-feeding. From enteric fever the annual death-rate per 1000 inhabitants during the same five years was 0·17 in Middlesbrough, as against 0·10 in England and Wales. The difference in mortality ascribed to pneumonia is still more conspicuous; the Middlesbrough mean annual rate of 3·41 per 1000 is more than double the corresponding rate for the country generally. "Pneumonia," in the statistical sense of the report, includes both broncho-pneumonia of children, which prevails largely during the winter, and lobar pneumonia, which was found to predominate in the spring. In 1888, when Middlesbrough suffered from a special prevalence of pneumonia, investigated for the Local Government Board by the late Dr. E. Ballard, the incidence of the disease was essentially upon middle-aged and old persons. No very disproportionate incidence upon any one age-group has, however, characterised the fatal "pneumonia" of Middlesbrough in recent years. Compared with England and Wales, the Middlesbrough figures show a higher actual death-rate among females, but a much lower rate relatively to the males. The conditions of work in iron-smelting lead to such sudden changes in body temperature and give such facilities for taking chills that the excess of pneumonia might have been expected to be conspicuous among the ironworkers. No such excess could be demonstrated on statistical evidence. Dr. Fletcher, however, expresses doubts as to the sufficiency of the occupational returns available for the purpose. The clinical and bacteriological characters of the pneumonia at present met with in Middlesbrough do not appear to be exceptional. Dr. Fletcher considers that the fact that the excess runs through all age-groups indicates that the whole population is more or less uniformly affected by some influence which appears to predispose individuals of each age-group, but more especially the males, to attack. At present the nature of this influence cannot be definitely stated. When, however, the conditions of life of the population are considered in relation not only to pneumonia but also to enteric fever, diarrhœa, and other diseases in which mortality is excessive, it is difficult to resist the impression that common factors exist in the insanitary surroundings of dwellings, the bad ventilation of houses, overcrowding, want of sufficient and wholesome food and of proper clothing, exposure to inclement weather, and other deleterious conditions, which, as Dr. Fletcher shows, prevail to an unusual extent in the town. The report contains a variety of statistics as to age and sex distribution of the diseases referred to, which will be found useful for reference. Some of the deficiencies of sanitary administration to which Dr. Fletcher refers appear to have been rectified by the town council before the publication of the report, but there is evidently need for an active policy being undertaken by the municipal authorities in regard to housing, health visiting, nuisance abatement, improved water filtration, and other matters, in order to reduce so far as in their power the unenviable pre-eminence of Middlesbrough in respect of sickness and mortality.

On Occurrences of Enteric Fever in the Folkestone Urban District, by Dr. R. W. JOHNSTONE.[2]—Dr. Johnstone in this report presents a remarkable series of facts, implicating a typhoid carrier as the cause of no fewer than five outbreaks of enteric fever, associated with milk, between the years 1893 and 1909. The man in question, a milker, N., was ascertained to be a carrier in 1909, when the typhoid bacillus was isolated from the fæces on five separate occasions on which samples were taken. He was about 60 years of age and enjoyed excellent health. To his knowledge he had never suffered from enteric fever, although he had been attacked by a severe illness of an uncertain kind about 30 years before. He had become a regular milker in 1893, when he came to a farm in the Elham rural district, close to Folkestone, and from that time until August, 1909, he had been employed on five farms near to the town. At three of these farms enteric fever broke out during N.'s stay, and cases of enteric fever occurred in the neighbourhood of all five of them whilst he was there. On the milk round of each of the five farms there was undue prevalence of enteric fever at intervals during the time N. worked there, and no such prevalence was observed either before his advent or after his departure. During the period 1896–1909 64 per cent. of the cases of enteric fever infected in Folkestone were persons who had taken milk from a farm in which N. was working. The outbreaks had attracted considerable attention, and their origin and relation to the milk-supplies had been fully investigated as they occurred. The suspicion that the milker N. was in some way or other concerned with the infectiousness of the milk at the places where he worked had been entertained by Mr. Pearson, the Folkestone inspector of nuisances, as long ago as 1900, before bacteriology had demonstrated the existence of the chronic carrier, and between that year and 1909 this inspector had paid special attention to N.'s movements and had traced numerous cases of enteric fever to milk from farms at which N. worked. On reviewing the facts at the present time it was possible to refer to this carrier the infection of as many as 230 persons during the period 1893–1909 distributed year by year as follows:—

1893	1	1902	16
1894	3	1903	7
1895	4	1904	5
1896	17	1905	—
1897	21	1906	2
1898	14	1907	3
1899	68	1908	5
1900	38	1909	14
1901	12		

Dr. Johnstone points out that the N. milk was supplied in two districts for three months during 1901 without any known increase of enteric fever in those districts, and that no cases could be attributed to N. milk during the year 1905. Neither of these facts is, however, sufficient to disprove a carrier hypothesis, as N. may have been only intermittently in an infectious condition, while even if his condition was one of continued infective ability it was not inevitable that infection should always reach the milk-supply. The principal results of Dr. Johnstone's inquiry are referred to in the special report made by Dr. J. C. G. Ledingham to the Local Government Board on enteric fever carriers, which was reviewed in THE LANCET of Dec. 3rd last, p. 1631. Dr. Johnstone's report should, however, itself be carefully studied by all who desire

[1] Reports to the Local Government Board on Public Health Subjects (New Series, No. 42). London: Wyman and Son, Fetter-lane; Edinburgh: Oliver and Boyd; Dublin: E. Ponsonby. Price 8d.

[2] Ibid., No. 41. Price 6d.

to realise the weight of the circumstantial evidence which supports this remarkable example of continuity of carrier infectivity.

ANNUAL REPORTS OF MEDICAL OFFICERS OF HEALTH.

City of Sheffield.—The population of this city as estimated by the Registrar-General amounted in 1909 to 470,958, and it may be noted that the extension of the city limits in 1901 added some 25,000 to 30,000 to the population. In 1890 the population was only 321,079. The birth-rate for 1909 amounted to 28·2 per 1000, which was considerably below that of any previous year. The marriage-rate was also the lowest yet recorded—i.e., only 14·6 per 1000 persons married. Under the above circumstances there is some satisfaction in being able to record that the death-rate, 15·07 per 1000 for the year, beat all previous records, as did the infantile mortality figure, which was only 119 per 1000 births, the lowest figure previously recorded having been 141 per 1000 births. Dr. Harold Scurfield furnishes some interesting data relative to industrial phthisis, but it would add to the interest of the figures if we could be told how much of this phthisis is tuberculous. Amongst grinders aged 18 years and over the average death-rate from phthisis for the nine years 1901–09 was 15·1, that of cutlers 5·8, of file cutters 5·2, silver workers 5·5, tailors 1·5, printers 3·7, and joiners 1·7 per 1000 in each instance, while the phthisis death-rate amongst all males aged 20 and over was 2·7 per 1000. In connexion with the question of pulmonary tuberculosis and "phthisis" an instructive table is furnished showing the death-rate from these combined diseases in Sheffield since 1839, together with the percentage of total deaths which took place in the workhouse. It would be of interest if curves could be made showing the relation between the phthisis death-rate and the percentage of deaths occurring in the workhouse. Dr. Scurfield reprints in his annual report the paper which he read at the Tuberculosis Congress in Edinburgh,[1] wherein he sets forth the provision made in Sheffield for dealing with cases of tuberculosis in the educational, therapeutic, isolation, and after-care phases. There is no municipal sanatorium at Sheffield, but £1000 annually are available for sending suitable cases to other sanatoriums. It would not, the medical officer of health declares, be possible in the absence of an invalidity insurance scheme to fill a 40-bed sanatorium with suitable cases from Sheffield—a somewhat significant statement made in relation to a population of nearly half a million. He thinks, also, that as things have developed in Sheffield a dispensary would be of no advantage, since all that could be done by such an institution is already provided for in the office of the medical officer of health and the out-patient department, as both of the city hospitals coöperate in the scheme. One of the weak points in the present scheme in Sheffield is, as is obvious elsewhere in this country, the fact that the bread-winner usually remains at work until his disease has passed the curable stage, and the only remedy for this, as was demonstrated in the Local Government Board report upon sanatoriums, is the introduction of some scheme such as the compulsory insurance system in Germany. There is in Sheffield a by-law against spitting in public carriages, halls, or waiting-rooms, but the medical officer of health thinks that spitting upon footpaths ought to be prohibited, and that chronic bronchitics should use pocket spittoons. In Dr. Scurfield's opinion the most striking point brought out at the Edinburgh Congress was the extraordinary percentage of human beings who become infected with tuberculosis at some period of their lives and whose disease is only recognised at the post-mortem examination. But, of course, a great deal of this has been known and appreciated amongst the Germans for many years, as is shown by the saying that everyone has at the end a focus of tuberculosis. With regard to bovine tuberculosis, Dr. Scurfield regards the present method of searching out cows with tuberculous udders as a clumsy makeshift. It appears, nevertheless, from the report of the veterinary surgeon that the number of tuberculous udders discovered during 1909 was greater than in any previous year—a fact which speaks well for the increasing efficiency of the inspection. The Sheffield report upon the Home Office inquiry as to the effects of the industrial employment of women on child-bearing and infantile mortality is contained in the annual volume before us, where some of the conclusions are thus summarised: "The group of mothers not industrially employed is better than any of the groups of mothers industrially employed as regards infant mortality, as regards the number of births, and as regards the liability to premature live births, whether judged by the births forming the subject of the inquiry or by the records of the past, but it has to be remembered that the number of industrially employed mothers is very small."

[1] See THE LANCET, July 16th, 1910, p. 166.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 77 of the largest English towns 7973 births and 4611 deaths were registered during the week ending Dec. 24th, 1910. The annual rate of mortality in these towns, which had decreased from 18·1 to 15·2 per 1000 in the three preceding weeks, further declined to 14·2 in the week under notice. During the first 12 weeks of the quarter the death-rate in these towns averaged 14·7 per 1000. In London during the same period the death-rate, calculated on a probable over-estimate of its population, was equal to 15·3 per 1000. The annual death-rates in the 77 towns in the week under notice ranged from 6·8 in Stockton-on-Tees, 7·9 in Northampton, 8·6 in Smethwick, and 9·1 in Willesden and in Derby, to 21·4 in Preston, 21·6 in Stoke-on-Trent, 25·4 in Dewsbury, and 25·9 in Rotherham. The 4611 deaths from all causes in the 77 towns during the week showed a decrease of 335 from the number in the preceding week, and included 442 which were referred to the principal epidemic diseases, against 332 and 397 in the two preceding weeks; of these 442 deaths, 208 resulted from measles, 64 from diarrhœa, 61 from whooping-cough, 56 from diphtheria, 28 from enteric fever, and 25 from scarlet fever, but not one from small-pox. The mean annual rate of mortality from these epidemic diseases, which had been 1·0 and 1·2 per 1000 in the two preceding weeks, further rose to 1·4 in the week under notice. No death from any of these epidemic diseases was registered in Leyton, Halifax, Walsall, York, Aston Manor, Devonport, or in seven other smaller towns; the annual death-rates therefrom ranged upwards, however, to 2·7 in Tottenham, 2·9 in Middlesbrough, 3·5 in Grimsby, 4·5 in West Hartlepool, and 7·1 in Rotherham. The fatal cases of measles in the 77 towns, which had been 143 and 169 in two preceding weeks, rose again to 208 in the week under notice; the highest annual rates from this disease in the week were 2·0 in Tottenham, 2·5 in Plymouth and in West Hartlepool, 3·5 in Grimsby, and 3·9 in Rotherham. The 64 deaths attributed to diarrhœa showed a slight increase compared with the number in the previous week. The 61 deaths from whooping-cough were equal to the number recorded in the previous week, and caused the highest rate in Middlesbrough. The 56 deaths referred to diphtheria was the highest number recorded in any week of the year, and included 16 in London, 5 in Leeds, 4 in King's Norton, and 3 each in Portsmouth and Birmingham. The deaths from enteric fever, which had been 21 and 26 in the two previous weeks, rose to 28 in the week under notice; 7 deaths occurred in London and 2 each in Wigan, Burnley, Preston, and Bradford. The 25 deaths from scarlet fever showed a decline from the numbers in the two previous weeks; 4 deaths were registered in Liverpool, 4 in Salford, 3 in Stoke-on-Trent, 3 in Birmingham, 2 in Manchester, and 2 in Huddersfield. The number of scarlet fever patients under treatment in the Metropolitan Asylums and the London Fever Hospital, which had declined in the six preceding weeks from 1882 to 1680, had further fallen to 1627 on Saturday, Dec. 24th; 167 new cases of this disease were admitted to these hospitals during the week, against 170, 169, and 156 in the three preceding weeks. The 1309 deaths from all causes in London in the week under notice included 261, which were referred to pneumonia and other diseases of the respiratory system, against numbers which had decreased from 669 to 355 in the three preceding weeks; these 261 deaths were 150 fewer than the corrected average number in the corresponding week of the five years 1905–09. The causes of 29, or 0·6 per cent.,

of the deaths registered during the week in the 77 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in the week under notice in Leeds, Bristol, West Ham, Newcastle-on-Tyne, Hull, Leicester, Stoke-on-Trent, Salford, and in 50 other smaller towns; the 29 uncertified causes of death in the 77 towns included 5 in Liverpool, 3 in Birmingham, 3 in Sheffield, 2 in St. Helens, and 2 in South Shields.

In 77 of the largest English towns 6915 births and 4591 deaths were registered during the week ending Dec. 31st, 1910. The annual rate of mortality in these towns, which had declined in the four preceding weeks from 18·1 to 14·2 per 1000, further fell to 14·1 in the week under notice. During the 13 weeks of the past quarter the death-rates in these towns averaged 14·7 per 1000, against 14·8 and 14·3 in the corresponding quarters of 1908 and 1909. In London the death-rate last quarter was equal to 15·3 per 1000, against 13·7 and 13 5 in the two preceding corresponding quarters. The annual death-rates in the 77 towns during the week under notice ranged from 5·0 in Smethwick, 5·1 in West Hartlepool, 7·4 in King's Norton, and 7·8 in Wallasey, to 20·4 in Dewsbury, 22·0 in Rotherham, 23·1 in Huddersfield, and 24·0 in Tynemouth. The 4591 deaths from all causes in the 77 towns in the week under notice showed a further decline of 20 from the decreasing numbers in the four preceding weeks, and included 391 which were referred to the principal epidemic diseases, against 332, 397, and 442 in the three preceding weeks; of these 391 deaths, 185 resulted from measles, 55 from diphtheria, 54 from whooping-cough, 51 from diarrhœa, 25 from enteric fever, and 21 from scarlet fever, but not one from small-pox. The mean annual rate of mortality from these epidemic diseases in the 77 towns was equal to 1·2 per 1000, against 1·2 and 1·4 in the two preceding weeks. No death from any of these epidemic diseases was registered in the week under notice in East Ham, Birkenhead, Wolverhampton, Walsall, York, Aston Manor, and King's Norton; the annual rates therefrom ranged upwards, however, to 2·9 in Great Yarmouth and West Bromwich, 3·6 in Brighton, and 6·3 in Rotherham. The fatal cases of measles in the 77 towns, which had been 169 and 208 in the two previous weeks, declined again to 185 in the week under notice; the highest annual rates from this disease last week were 1·8 in Bury and in Oldham, 2·1 in Grimsby, 2·4 in Brighton, and 4·7 in Rotherham. The 55 deaths referred to diphtheria were within one of the number in the previous week, and included 22 in London and its suburban districts, and 3 both in Liverpool and in Manchester. The 54 deaths from whooping-cough showed a decline of 7 from the number returned in each of the two preceding weeks; the annual rate from this disease was equal to 1·3 in Newcastle-on-Tyne and 1·6 in Rotherham. The 51 deaths attributed to diarrhœa were fewer by 13 than the number in the previous week. The deaths referred to enteric fever, which had been 21, 26, and 28 in the three preceding weeks, declined last week to 25, of which 5 occurred in London, 4 in Manchester and Salford, 3 in Preston, and 2 each in Portsmouth, Liverpool, and Hull. The fatal cases of scarlet fever, which had been 30, 28, and 25 in the three preceding weeks, further declined last week to 21, and included 5 in Manchester and Salford, 3 in London, 2 in Liverpool, and 2 in Norwich. The number of scarlet fever patients under treatment in the Metropolitan Asylums and the London Fever Hospital, which had steadily declined in the seven preceding weeks from 1882 to 1627, had further fallen to 1594 on Saturday, Dec. 31st; 138 new cases of this disease were admitted to these hospitals during the week, against 157 and 167 in the two previous weeks. The 1356 deaths from all causes in London in the week under notice included 263 which were referred to pneumonia and other diseases of the respiratory system, against 355 and 261 in the two preceding weeks; these 263 deaths were fewer by 119 than the corrected average number in the corresponding week of the five years 1905–09. The causes of 41, or 0·9 per cent., of the deaths registered during the week in the 77 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leeds, Bristol, West Ham, Bradford, Nottingham, Leicester, and in 50 smaller towns; the 41 uncertified causes of death in the 77 towns in the week under notice included 10 in Liverpool, 4 in Birmingham, and 3 in Sheffield.

HEALTH OF SCOTCH TOWNS.

In eight of the principal Scotch towns 823 births and 486 deaths were registered during the week ending Dec. 24th, 1910. The annual rate of mortality in these towns, which had decreased in the three preceding weeks from 17·5 to 16·5 per 1000, further declined to 13·4 in the week under notice. During the first 12 weeks of the quarter the death-rate in these eight towns averaged 14·8 per 1000, and was slightly above the mean rate during the same period in the 77 largest English towns. The annual death-rates in the eight Scotch towns in the week under notice ranged from 8·9 and 10·7 in Paisley and Aberdeen to 19·6 in Perth and 20·8 in Dundee. The 486 deaths from all causes in the eight towns during the week showed a decline of 112 from the number in the previous week, and included 40 which were referred to the principal epidemic diseases, against 47, 40, and 50 in the three preceding weeks; of these 40 deaths, 12 resulted from whooping-cough, 11 from diarrhœa, 10 from diphtheria, 6 from scarlet fever, and 1 from "fever," but not one from small-pox or from measles. The mean annual rate of mortality from these epidemic diseases in the eight towns in the week under notice was equal to 1·1 per 1000, or 0·3 below the rate from the same diseases in the 77 English towns. The 12 deaths referred to whooping-cough in the eight towns showed but slight variation from the numbers in recent weeks, and included 3 in Glasgow, 3 in Dundee, and 2 both in Aberdeen and in Greenock. The fatal cases of diarrhœa, which had been 9 in each of the two preceding weeks, were 11 in the week under notice, of which 5 were returned in Glasgow and 5 in Dundee. The deaths attributed to diphtheria, which had been 11, 13, and 18 in the three preceding weeks, declined to 10 during the week, of which 6 were recorded in Glasgow and 2 in Dundee. Of the 6 deaths from scarlet fever, 2 occurred in Dundee, and 1 each in Glasgow, Edinburgh, Paisley, and Perth. The fatal case of "fever" was registered in Dundee. The deaths referred to diseases of the respiratory system in the eight towns, which had decreased from 157 to 122 in the three preceding weeks, further declined to 117 in the week under notice, and were 56 below the number in the corresponding week of last year. The causes of 15, or 3·1 per cent., of the deaths in the eight towns in the week under notice were not certified or not stated; in the 77 English towns the proportion of uncertified causes of death did not exceed 0·6 per cent.

In Glasgow 429 births and 245 deaths were registered in the week ending Dec. 31st, 1910. The deaths exceeded the number in the previous week by 22, and were equal to an annual rate of 14·5 per 1000, against 17·2 and 13·2 in the two preceding weeks. The 245 deaths included 18 which were referred to the principal epidemic diseases, of which 9 resulted from diarrhœa, 5 from diphtheria, 2 from scarlet fever, and 1 each from whooping-cough and enteric fever, but not 1 from measles or small-pox; these 18 deaths were equal to an annual rate of 1·1 per 1000. The 9 deaths attributed to diarrhœa exceeded the number in the previous week by 4; the 5 fatal cases of diphtheria showed, however, a decline of 1. The deaths referred to diseases of the respiratory system, which had been 69 and 52 in the two previous weeks, declined to 47 in the week under notice. Ten deaths were the result of violence, and 80 were recorded in public institutions. The causes of 6, or 2·4 per cent., of the deaths were not certified. In Edinburgh 134 births and 102 deaths were registered in the week under notice. The deaths exceeded by 21 the number returned in the preceding week, and were equal to an annual rate of 14·8 per 1000, against 15·8 and 11·7 in the two preceding weeks. The 102 deaths included 7 which were referred to the principal epidemic diseases, of which 5 resulted from diphtheria and 1 each from scarlet fever and diarrhœa, but not one from measles, whooping-cough, enteric fever, or small-pox; these seven deaths were equal to an annual rate of 1·0 per 1000. The fatal cases of diphtheria in the city, which had been 3, 8, and 1 in the three preceding weeks, rose again to 5 in the week under notice. The deaths referred to diseases of the respiratory system in Edinburgh, which had been 28, 22, and 19 in the three preceding weeks, rose again to 20 in the week under notice. Four deaths were the result of violence, and 34 were recorded in public institutions. The causes of 2, or

2·0 per cent., of the deaths registered during the week were not certified.

HEALTH OF IRISH TOWNS.

In 22 town districts of Ireland, having an estimated population of 1,151,790 persons, 477 births and 423 deaths were registered during the week ending Dec. 24th, 1910. The mean annual rate of mortality in these towns, which had been 19·6 per 1000 in each of the two preceding weeks, declined to 19·1 in the week under notice. During the first twelve weeks of the quarter the annual death-rate in these Irish towns averaged 17·6 per 1000; the mean rate during the same period did not exceed 14·7 in the 77 largest English towns and 14·8 in the eight Scotch towns. The annual death-rate during the week was equal to 21·6 in Dublin, 17·6 in Belfast, 17·1 in Cork, 18·0 in Londonderry, 10·9 in Limerick, and 13·6 in Waterford; the mean annual death-rate in the 16 smallest of these Irish towns in the week under notice was equal to 21·3 per 1000. The 423 deaths from all causes in the 22 town districts in the week showed a decline of 9 from the number in the previous week, and included 25 which were referred to the principal epidemic diseases, against 33 and 23 in the two previous weeks; these 25 deaths were equal to an annual rate of 1·1 per 1000; in the 77 English towns the mean rate from the same diseases was 1·4 per 1000 and 1·1 in the eight Scotch towns. The 25 deaths from these epidemic diseases in the Irish towns in the week under notice included 9 from measles, 6 from whooping-cough, 5 from diarrhœa, 3 from diphtheria, 1 from scarlet fever, and 1 from enteric fever, but not one from small-pox. The fatal cases of measles, which had been 5 and 10 in the two preceding weeks, were 9 in the week under notice, and included 6 in Lurgan. The 6 deaths from whooping-cough showed an increase of 4 on the number in the previous week; 5 deaths were recorded in Dublin and 1 in Belfast. Of the 5 fatal cases of diarrhœa 2 occurred in Dublin. Of the 3 deaths from diphtheria 2 were registered in Dublin and 1 in Portadown. The fatal case of enteric fever was recorded in Dublin, and that of scarlet fever in Belfast. The deaths in the 22 towns during the week included 146 which were referred to pneumonia and other diseases of the respiratory system, against numbers increasing from 80 to 130 in the five preceding weeks. The causes of 20, or 4·7 per cent., of the deaths registered in the Irish towns in the week under notice were not certified; in the 77 English towns the proportion of uncertified deaths did not exceed 0·6 per cent., and in the eight Scotch towns it was equal to 3·1 per cent.

In 22 town districts of Ireland, having an estimated population of 1,151,790 persons, 584 births and 371 deaths were registered during the week ending Dec. 31st, 1910. The mean annual rate of mortality in these towns, which had been equal to 19·6 and 19·1 per 1000 in the two preceding weeks, declined to 16·8 in the week under notice. During the 13 weeks of the past quarter the annual death-rate in these Irish towns averaged 17·6 per 1000; the mean rate during the same period did not exceed 14·7 in the 77 largest English towns, and 14·8 in the eight principal Scotch towns. The annual rate during the week under notice was equal to 18 9 in Dublin, 12·1 in Belfast, 25·3 in Cork, 16·8 in Londonderry, 28·7 in Limerick, and 17·5 in Waterford; the mean annual death-rate in the 16 smallest of these Irish towns in the week under notice was equal to 16·4 per 1000. The 371 deaths from all causes in the 22 town districts in the week under notice showed a decline of 52 from the number in the previous week, and included 23 which were referred to the principal epidemic diseases, against 23 and 25 in the two preceding weeks; these 23 deaths were equal to an annual rate of 1·0 per 1000, the rate from the same diseases in the 77 English towns being 1·2 per 1000. The 23 deaths from these epidemic diseases in the Irish towns in the week under notice included 14 from whooping-cough, 3 from measles, 3 from scarlet fever, 2 from diarrhœa, and 1 from diphtheria, but not one from enteric fever or small-pox. The fatal cases of whooping-cough, which had been 4 and 6 in the two previous weeks, further rose to 14 in the week under notice, and included 7 in Dublin, 3 in Londonderry, and 2 in Cork. The 3 fatal cases of scarlet fever showed an increase of 2 upon the number in the previous week; 2 occurred in Dublin and 1 in Belfast. The deaths in the 22 towns during the week included 84 which were referred to pneumonia and other diseases of the respiratory system, showing a decline of 62 from the number in the previous week. The causes of 27, or 7·3 per cent. of the deaths registered in the Irish towns in the week under notice were not certified; in the 77 English towns the proportion of uncertified deaths in the week did not exceed 0·9 per cent.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet-Surgeon: J. C. Ferguson to the *Royal Arthur*. Staff-Surgeons: A. Davidson to the *Pembroke*, for Royal Naval Barracks; J. N. Robertson to the *Diana*, on recommissioning; C. R. Sheward to the *Pathfinder*, on recommissioning; H. H. R. Denny to the *President*, additional, for hospital course; and A. I. Sheldon to the *Britannia*. Surgeons: F. C. Robinson to the *Pembroke*, additional, for disposal; J. A. Thompson to the *King Edward VII.*; H. Stone to the *Vivid*, for Royal Naval Barracks; F. C. Alton to the *Berwick*; F. J. Gowans to the *President*, additional, for three months' hospital course; H. Woods to the *Barham*, on recommissioning; D. Horgan to the *Diana*, on recommissioning; G. R. McCowen to the *Dwarf*, additional, and on recommissioning; W. C. B. Smith to the *Crescent* and to the *Tamar*; T. R. L. Jones to the *Crescent*, and afterwards to the *Woodlark*; E. J. H. Garstin to the *Crescent* and to the *Nightingale*; F. H. Stephens to the *Crescent* and to the *Kinsha*; R. N. W. Biddulph to the *Doris*, additional; M. F. Caldwell to the *Blenheim*; C. H. L. Petch to the *Indus*; H. M. Langdale to the Royal Marine Division, Portsmouth; S. L. McBean to Portland Hospital; and E. L. Markham to the *King Alfred*, additional, for Devonport Subdivision of Home Fleet.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel C. W. Johnson, from Gibraltar, has taken over medical charge of the Military Hospital at Bulford Camp, Salisbury Plain, in succession to Lieutenant-Colonel R. R. N. Moore. Lieutenant-Colonel L. T. M. Nash, from Hyderabad, Sind, has been selected to command the Station Hospital at Karachi. Lieutenant-Colonel P. C. H. Gordon, from Bulford Camp, has taken up duty at Pembroke Dock. Lieutenant-Colonel G. E. Hale, D.S.O., medical inspector of recruits in the Eastern Command, has been selected to command the Station Hospital at Mhow. Major L. P. More, staff officer for Medical Mobilisation Second (Rawal Pindi) Division, has arrived home from India. Major R. F. E. Austin, from Jutogh, has taken up duty at Kasauli. Major W. P. Gwynn has been transferred from Quetta to Karachi. Major G. B. Carter, at present serving in Ireland, has been placed under orders for duty in the Burma Division. Captain C. H. Turner, on return home from a tour of service in India, has been appointed to the Dublin District. Captain A. M. MacLaughlin, from the London District, has taken up duty as Specialist Sanitary Officer to the Scottish Command. Captain A. W. A. Irwin has embarked for tour of service at Gibraltar. Captain H. W. Long has arrived home on duty from Sierra Leone. Captain P. A. Lloyd Jones, from Malta, has been posted to the Irish Command. Captain F. Ashe, from Colchester, has been appointed Specialist in Midwifery and Diseases of Women and Children to the Ninth (Secunderabad) Division. Captain S. C. Bowle and Captain K. A. C. Doig, on completion of a tour of service in India, have been posted to the Southern Command. Captain P. C. T. Davy, from Nowgong, has taken over command of the Station Hospital at Jutogh. Lieutenant T. B. Nicholls has embarked for duty in Egypt. Lieutenant E. C. G. M. Kinkead has been transferred from Kilworth to Buttevant. Lieutenant A. N. R. McNeill, from Ayr, has taken up duty at Mauritius. Lieutenant C. H. O'Rorke has been transferred from the Curragh Camp for duty at Newbridge. Lieutenant G. S. Parkinson, from Dunree Camp, has joined at Enniskillen.

INDIAN MEDICAL SERVICE.

Lieutenant-Colonel H. P. Dimmock, Bombay, has arrived home. Lieutenant-Colonel R. H. Castor, on return from leave, has been appointed to the Civil Medical Charge at Shwebo, Burma, in succession to Lieutenant-Colonel F. J.

Dews, who has been granted leave combined with furlough for two years. Lieutenant-Colonel J. A. Cunningham has taken over duty as Inspector-General of Civil Hospitals in the United Provinces. Lieutenant-Colonel D. T. Lane, civil surgeon at Muree, has been appointed Civil Surgeon at Lahore, in succession to Lieutenant-Colonel H. Hedley, who has been attached for special duty to the Principal Medical Officer, Second (Rawal Pindi) Division. Lieutenant-Colonel J. A. Burton, Madras, has been granted leave from Dec. 6th. Lieutenant-Colonel A. C. Younan, in medical charge of the 25th Punjabis, has arrived home on leave from Rawal Pindi. Major P. St. More has been appointed Civil Surgeon and District Plague Medical Officer at Attock. Major E. F. E. Baines has been appointed to the substantive Medical Charge of the 3rd Sappers and Miners at Kirkee, in succession to Lieutenant-Colonel G. E. Fooks. Major T. W. Irvine has been appointed Civil Surgeon at Peshawar by the Foreign Department of the Government of India, vice Captain N. M. Wilson, who has been selected as Agency Surgeon at Meshed. Major J. Penny has had an extension of his leave on medical certificate for six months. Captain T. F. Owens, at present on general duty in the chemical examiner's department at Calcutta, has been selected to succeed Major F. N. Windsor as Chemical Examiner at Rangoon. Major S. Browning Smith has been re-posted to the Punjab by the Home Department. Major T. A. O. Langston, Bengal, has been granted leave of absence from Dec. 12th. Captain V. B. Green-Armytage, on return from leave, has been appointed Specialist in Midwifery and Diseases of Women and Children to the Burma Division. Captain G. Fowler has been appointed to the Civil Medical Charge of the Akola District. The services of Captain R. A. Chambers have been replaced at the disposal of the Government of India in the Home Department.

APPOINTMENTS ON H.E. THE VICEROY OF INDIA'S PERSONAL STAFF.

Lord Hardinge, the new Viceroy of India, has made the following appointments to his personal staff:—As Honorary Surgeons: Surgeon-General P. H. Benson, I.M.S., Surgeon-General with the Government of Madras; Surgeon-General A. T. Sloggett, C.B., C.M.G., A.M.S., Principal Medical Officer, (Sixth) Poona Division; Colonel R. H. Forman, A.M.S., Principal Medical Officer, Bombay Brigade; Colonel C. F. Willis, I.M.S., Officiating Deputy Principal Medical Officer, His Majesty's Forces in India; Colonel G. F. A. Harris, I.M.S., Inspector-General of Civil Hospitals in Bengal; Lieutenant-Colonel B. M. Skinner, M.V.O., R.A.M.C., commanding the Station Hospital at Peshawar; Lieutenant-Colonel H. N. Thompson, D.S.O., R.A.M.C., commanding the Station Hospital at Lucknow; Lieutenant-Colonel R. S. F. Henderson, R.A.M.C., Secretary to the Principal Medical Officer, His Majesty's Forces in India; Lieutenant-Colonel H. Smith, I.M.S.; Major B. Seton, I.M.S., Secretary to the Director-General, Indian Medical Service; and Major W. Selby, D.S.O., Civil Surgeon at Lucknow.

SPECIAL RESERVE OF OFFICERS.

Royal Army Medical Corps.

Lieutenant Charles J. Simpson is confirmed in his rank.

TERRITORIAL FORCE.

Royal Army Medical Corps.

South-Eastern Mounted Brigade Field Ambulance, Royal Army Medical Corps: Major Percy C. Burgess to be Lieutenant-Colonel (dated Nov. 24th, 1910).

1st South Midland Mounted Brigade Field Ambulance, Royal Army Medical Corps: William Henry Cusack to be Lieutenant (dated Sept. 3rd, 1910).

2nd Home Counties Field Ambulance, Royal Army Medical Corps: Major Albert R. Henchley to be Lieutenant-Colonel (dated Nov. 26th, 1910).

3rd West Lancashire Field Ambulance, Royal Army Medical Corps: Captain Henry Dodgson resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform (dated Jan. 4th, 1911).

Attached to Units other than Medical Units.—Lieutenant Ivan C. Keir resigns his commission (dated Jan. 4th, 1911).

JOURNAL OF THE ROYAL ARMY MEDICAL CORPS.

With the January issue the *Journal of the Royal Army Medical Corps* enters upon its sixteenth volume. In the opening article on Table Jellies Major W. W. O. Beveridge, D.S.O., after remarking that jellies appear to be prescribed for no definite purpose other than that they offer a welcome change in convalescence, points out that jellies have a certain real, though limited, function in health and disease. They are a protein sparer, greater even than the fats or carbohydrates. The author also quotes an American authority Dr. T. R. Martin, who states that "besides its protein-sparing properties, the power to utilise gelatine depends also on the protein condition of the organism at the start; the lower the condition the more strongly does the organism lay claim to gelatine as a means of protecting its living substance." After arriving at the conclusion that it is not at all necessary to wait for early convalescence before giving jellies in most disorders, Major Beveridge discusses the various forms in which jellies can be obtained, their use, and analysis. Lieutenant-Colonel R. J. S. Simpson, C.M.G., has in this number a further instalment of his Medical History of the South African War, and among other useful articles are those on the Incineration of Human Excreta, by Lieutenant-Colonel Bruce Skinner, M.V.O.; and an Inquiry into a Small Epidemic of Paratyphoid Fever in India, by Major H. W. Grattan and Major D. Harvey. Some Episodes in the Life of James Goodall Elkington, an Army Surgeon in the Peninsular Days, together with Extracts from his Journal, by Lieutenant-Colonel H. P. Elkington, will also be found to be of much interest.

THE MILITARY SURGEON.

The December number of the *Military Surgeon*, published in Washington, D.C., contains some interesting material. An address by the President of the Association of Military Surgeons of the United States deals with the status of the Medical Corps of the National Guard in its relation to the Army, the Navy, and the Public Health and Marine Hospital Service, and generally explains the status of the organisation of the Association of Military Surgeons in the United States, of which Colonel K. Weaver is President. Among other articles we may mention as very interesting one by Colonel Nicomedes Antelo, Chief of the Surgical Service at the Military Hospital at Buenos Aires, on the use of tincture of iodine in the surgery of war. The writer comes to the conclusion that this tincture is the ideal skin antiseptic in military surgery, a conclusion which will be seen to be much in accord with the teaching of an article published in our issue this week on the use of iodine as a disinfectant of the skin before operation by Mr. Willmott Evans.

Correspondence.

"Audi alteram partem."

A METHOD OF SERUM DIAGNOSIS FOR TUBERCLE.

To the Editor of THE LANCET.

SIR,—I have read with much interest the communication from Captain V. B. Nesfield on a method of serum diagnosis for tubercle which appeared in your columns on Dec. 31st last, inasmuch as I have been experimenting on very similar lines for a long time. The results which I have obtained will be dealt with at length in my Hunterian lectures in February next. I should like, however, to give an outline of my methods and some of my results in view of the fact that Captain Nesfield's method is somewhat similar to mine and might be taken as anticipating it.

There is, of course, nothing new in the attempt to diagnose tuberculosis by means of the method of fixation of complement, a large number of papers on the subject having been published during the last few months. I may refer especially to the researches of Calmette, Massol and Breton, Simon and Hans, Slatineano and Danielopol, Laub and Novosky, Butler and Mefford, Pickert, and others. In most (I believe in all, but have not all the references by me as I write) tuberculin has been used as the antigen, and my earlier work was carried out on similar lines. I find, however, and in this point only does my method resemble that of Captain Nesfield, that an emulsion of killed tubercle bacilli is greatly superior in this respect. But I attach the very greatest importance to a point that he does not mention—the accurate standardisation

of the emulsion. I have used a suspension which when centrifugalised until the deposit is of constant volume in a graduated tube is found to contain 4 per cent. of bacillary substance. I had hoped by this process to obtain an antigen of uniform strength, no matter what the source of the bacilli; this is not quite the case, small deviations being found with different samples of bacilli, and I now find it advisable to test all fresh emulsions against two or three known sera. The standard emulsion keeps fairly well, but I think it gets slightly weaker after six weeks or so; certainly most of my negative results in tuberculous cases have been got when I was using an old emulsion. The necessity for accurate standardisation is very great. Almost every serum will give complement absorption with an emulsion of tubercle bacilli if the latter is sufficiently strong, and, strange as it may seem, the few exceptions are always from tuberculous cases. They are due, as I shall show, to the presence of a substance which has the remarkable property of inhibiting the combination which usually occurs when antigen, antibody, and complement are present. This substance I believe to be the cause of the negative phase.

The criterion as to the strength of the reaction which I have adopted after much preliminary work is the *time necessary for the complete absorption of all complement* when the serum and emulsion are mixed in certain proportions (1 : 4) and incubated. I test the absorption by the addition of sensitised human corpuscles, as in my method for the Wassermann reaction.[1]

I may summarise some of my results. In health the absorption time is about 15–25 minutes. Thus, in 26 healthy persons or non-tuberculous patients 21 have shown times between those figures. In tuberculous patients the time is as a rule greatly shortened. Out of 40 cases tested the absorption time has been under 2½ minutes (it is not practicable to test at a shorter period) in 16 cases, under 5 in 26, under 10 in 31. The sera giving complete absorption in less than 2½ minutes have been tested in some cases with dilutions of the standard emulsion; thus, in one case the absorption time with a 1 in 500 dilution was 10 minutes. This refinement is hardly necessary for diagnostic purposes, but is required when the result of treatment has to be followed.

As regards the indication of the reaction from the point of view of making an immunity index, as Captain Nesfield suggests, I do not think this is altogether possible; immunity in tuberculosis depends on too many factors, especially, as I believe, on the resistance of the tissues. In general terms, however, I agree with him in thinking that, on the whole, the prognosis is good when the serum contains a large amount of antibody, and therefore (as I should put it) has a short absorption time. I have seen patients improve on a shortening time and *vice versâ*. But this is not an invariable rule, for I have found, on repeated examinations, a very long absorption time in a very mild case which was doing well on tuberculin treatment. But I believe it will be found that a prolonged absorption time does indicate a very high degree of susceptibility to the action of tuberculin, and is an indication to give very small doses, though it does not necessarily indicate that the patient's disease is progressive.

Although my method is not an absolute one, I believe it to be the best method for the serum diagnosis of tuberculosis which we have at present; it is simple and easy to carry out, and has the great advantage over the opsonic method of not involving the tedious and eye-destroying counting. It gives positive results in a larger number of cases than does the opsonic method if a single observation only is made, and is less open to technical errors. In one case I was able to demonstrate the negative phase by my method when the opsonic method was entirely useless. I ought to add that I do not think it possible that an absolute method for the serum diagnosis of tuberculosis will ever be invented. Normal persons all contain some amount of antibodies to the tubercle bacillus (this is true, at least, for town dwellers), and, as my method demonstrates with absolute clearness, the amount present in tuberculosis may be the same, or so nearly the same as only to be detected by the most refined quantitative work, or may even be less. The antibodies present in normal blood may be in part the cause of the immunity which most persons possess to the disease. It would be interesting to compare the amount present in adults and in young infants, but this I have not been able to do.

I am, Sir, yours faithfully,

King's College Hospital, Jan. 2nd, 1911. W. D'ESTE EMERY.

[1] THE LANCET, Sept. 3rd, 1910.

THE POSITION OF HOMŒOPATHY.

To the Editor of THE LANCET.

SIR,—Any appeal from Dr. R. Farquharson on a point of medical ethics or professional conduct is, all will admit, well entitled to careful and respectful consideration, and it may therefore be taken as certain that the letter from his pen which appeared in your issue of Dec. 24th, will lead more or less widely to the self-examination which he advises, and which, moreover, is by repute especially appropriate and salutary at this juncture of the year. With an earnest desire to seek peace and ensue it, Dr. Farquharson invites us as members of the medical profession to reconsider our attitude towards "homœopathy" and towards those who are "professors" of this "method of treatment." To sharpen our appetites for this task we are told that the homœopathic "professors" are able to treat disease on a "much more scientific principle" than any which we ourselves possess, and presumably it is to the examination of this therapeutic achievement that we are invited to address ourselves. But, most unfortunately, while offering so alluring a prospect, Dr. Farquharson neither defines the "scientific principle" in question nor indicates where an adequate presentation of it may be found; and the difficulty of accepting his invitation is still further increased by his announcement that "the absurd doctrines of Hahnemann have long since been abandoned." What, then, is the "homœopathy" for which a reconsideration is now requested? For, manifestly, an invitation to examine either "absurd doctrines long since abandoned," or a "scientific principle" not yet defined, is not an attractive proposal, and it is to be feared that until he can be more precise Dr. Farquharson will evoke only the scanty response which he anticipates and which, in the midst of an appeal for charity and goodwill, he proposes to interpret as indicative of the defective courage and candour of his professional brethren.

There remain the "professors" of this vague and amorphous "homœopathy," and these, we are told, suffer grievously for "honestly trying to do their duty according to their lights." They are, it seems, "scorned and rejected of men," meaning, presumably, medical men, for surely, unless rumour is strangely at fault, many a proclaimed "professor" finds a ready and not unremunerative welcome among both laymen and laywomen. And when it can be shown that any purpose other than the welcome just described can be served by the adoption by a medical practitioner of a distinctive title announcing a special therapeutic policy, and implying also the fitness of the public to judge of therapeutic policies in general, Dr. Farquharson may possibly succeed in convincing the profession that his "professors" are as "respectable" as he proclaims them to be. In the meantime, I will venture to remind him of the verdict of one for whose memory, I am sure, he entertains the highest respect. "The true physician," wrote the late Sir William Gairdner, "derives his chief claim to that character from his perfect intellectual and moral freedom. ..... It is the misfortune of homœopathy that its votaries, like those of all exclusive sects, can never occupy [this] position." And again, "It is obviously part of the policy of homœopathy ..... to flaunt in the faces of physicians the banner of its exclusive dogma, and to perpetuate the use of nicknames associated with every kind of bitterness." Such was the considered and deliberate decision of a physician who combined in very unusual measure clearness and breadth of outlook with charity and impartiality of judgment. But it may be said that all this applies only to the full-blooded days when homœopathy *was* homœopathy, and long ere its "absurd doctrines" had been "abandoned" for the vague "scientific principle" at which Dr. Farquharson hints and hesitates. Upon which remark there follows the obvious rejoinder, that so great a change having been accomplished in the creed of the "professors," any appeal for readjustment of attitude and amendment of conduct ought surely to be addressed, not to the medical profession, but to those individuals who, although they have "abandoned" the "absurd doctrines of Hahnemann," still

continue ostentatiously to disport themselves in the livery of the sect of which he was the founder.

I am, Sir, yours faithfully,

Harley-street, W., Dec. 26th, 1910. C. O. HAWTHORNE.

RE MEDICAL REFEREES UNDER THE WORKMEN'S COMPENSATION ACT.

To the Editor of THE LANCET.

SIR,—Having received from the Home Office a printed circular addressed to medical referees, containing, *inter alia*, the attached quotation, I had no alternative but to resign at once my appointments to Circuits 40 and 42, including the Bow, Shoreditch, Bloomsbury, and Whitechapel county courts.

The matter is of great interest to the profession and others, as it is clear that no medical referee appointed by the Secretary of State under the Workmen's Compensation Act can in future examine any workman on behalf of either employer or employed. The position can therefore be only held by those having no practice in accident examination.

I am, Sir, yours faithfully,

ALBERT BENTHALL.

Fellows-road, S. Hampstead, N.W., Dec. 30th, 1910.

Extract from Home Office Circular to Medical Referees.

It is particularly undesirable that they should act on behalf either of the employer or insurance company, or of the workman in cases in which weekly payments are actually being made; and apart from any emergency, or other quite exceptional circumstances, they should decline to act in such cases.

The Secretary of State desires to impress on referees the necessity of their paying particular attention to these directions.

THE "WHOLE-TIME" MEDICAL OFFICER OF HEALTH.

To the Editor of THE LANCET.

SIR,—May I venture to point out the slightly ambiguous use of the descriptive term "whole-time," as applied to medical officers of health, which occurs in your most valuable review of the Annus Medicus 1910? A medical officer of health who is debarred from private practice is not necessarily a whole-time officer, and if he holds other public appointments he most certainly is a part-time officer. The recent Order of the Local Government Board hardly *encourages* whole-time appointments; it gives security to the whole-timer and the part-timer alike, but it discourages the part-timer from private practice, and offers him instead certain clinical public appointments such as those alluded to in your retrospect. The real effect of the Order will be to establish the part-timer on an impregnable basis of official pluralism.

I am, Sir, yours faithfully,

Barnes, S.W., Dec. 30th, 1910. F. G. CROOKSHANK.

A LATIN TREATISE.

To the Editor of THE LANCET.

SIR,—In examining the Irish medical MSS. in the library of Trinity College, Dublin, I find three copies (more or less imperfect) of a translation of a Latin treatise which begins: "Cum humanae vitae brevitas, teste Hippocrite, ad immensae (*sic*) artis longitudinem vix sufficiat." If any of your readers could help me to identify this treatise I should be very grateful. It deals largely with eruptive diseases, boils, &c., and, to judge from the number of copies, was probably a standard work in, say, the sixteenth century.

I am, Sir, yours faithfully,

Dublin, Dec. 30th, 1910. T. K. ABBOTT.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

To the Editor of THE LANCET.

SIR,—The report of the inaugural dinner of this association appears in your issue of Dec. 17th last. We would be much obliged if you will correct the erroneous statements therein contained—viz., "Irish hospitals, excluding the F.R.C.S.I.," and "that Fellows only of the College should be examiners."

The protestation which the association made was against the system adopted by certain English hospitals of excluding from their staff those possessing the Fellowship of the Royal College of Surgeons, Ireland. The resolution passed at the special meeting on Dec. 10th of the Fellows of the College of Surgeons, Ireland, was:—

That the Examiners shall be selected from amongst the Fellows and the Professors of the College

We are, Sir, yours faithfully,

ANDREW CHARLES, R. P. McDONNELL } Hon. Secretaries.

A SPECULATION ON THE ORIGIN OF CANCER.

To the Editor of THE LANCET.

SIR,—I read with great interest and pleasure the Bradshaw lecture on cancer by Sir Alfred Pearce Gould. He gives all facts known at present about cancer and these are well arranged. All I will say about them is—all honour to the workers and more power to their elbows, Sir Alfred Pearce Gould himself included. If I understood him right, he concludes that certain organs (such as the uterus and the breast), on account of frequently repeated periods of great cellular activity, followed by periods of decline and atrophy, get prematurely old ("before the rest of the woman ages") and therefore are specially prone to cancer.

Now, throughout the whole animal world we find that the older the tissue the less is its cellular activity. Cancer is increased cellular activity. If Sir Alfred Pearce Gould is right, this increased cellular activity takes place in tissue that has grown prematurely old ("before the rest of the woman ages"). It is admitted at once that this increased cellular activity results in disorderly growth; but that is a matter of secondary importance. Thus Sir Alfred Pearce Gould has (1) not stated how cancer originates; and (2) has brought in the field a still more difficult problem—viz., increased cellular activity in tissues prematurely old (thus going against the universal law stated above). But taking the facts thus far known and putting aside for the time being the parasitic theory (and appearances are against it) I humbly beg to state that another explanation is possible.

To begin with, then, the statement often made—that the human body is a machine, timed to go for a certain number of years, after which it gets worn out and thus dies—is not in accordance with facts. Arrangements are made in the body for a constant supply of nutrition to all parts, more than making up for any wear and tear that might take place. Arrangements also are made for immediate removal of all waste materials. Now, if wear and tear had anything to do with old age and death, we ought to have some signs of this during the period of greatest activity. The child is always on the go; the youth is always about and active; but they show no signs of wear and tear. The heart and respiratory muscles do more work than any other part of the body, but we find no signs of extra wear and tear in them. Conclusion: There is nothing to show that old age is brought on by wear and tear of tissues.

Wear and tear of tissues not being able to account for old age, we are obliged to fall back on nutrition. Failure of *suitable* nutrition can be the only other cause. Now, it appears that the tissues, very soon after first coming into existence, begin slowly to change (proteins are unstable). All the time the tissue is changing the nutrition is, comparatively speaking, at a standstill. Thus, what was perfect nutrition at one time becomes less and less perfect as time goes on; and thus is brought about the gradual failure of nutrition. The make of the body is perfect, but no arrangement exists to modify the nutrition in accordance with the changing tissues. Under normal conditions all the tissues march together (change) in regular order. But under certain circumstances this regularity of the march is broken, and certain tissues fall back (particularly the epithelial tissue). Now, this retarded tissue finds the nutrition provided more suitable than the rest of the tissues, and thus comes into activity. Conclusion: It is the tissue which has aged *less* than the rest of the body which is specially prone to cancer.

Sir Alfred Pearce Gould has very ably pointed out the difference between the orderly growth of the embryo and the

disorderly growth of cancer. Now there is one important difference in the structure of the two which I do not remember reading in the lecture, and which may account for the disorderly growth in cancer. In the embryo, side by side with the ordinary tissue, and in due proportion, there exists an organising tissue—viz., the nervous tissue—which is absent in cancer. On rare occasions this organising element is absent also in the impregnated ovum, and the result is the same disorderly growth that we find in cancer. Do we know of any such instances? I think we do—molar pregnancy. Conclusion: Absence of nerve tissue is probably the cause of disorderly growth in cancer.

I am, Sir, yours faithfully,

H. D. MASANI,

Caterham, Dec. 29th, 1910. Lieut.-Col., I.M.S. (Retired).

A DISCLAIMER.

To the Editor of THE LANCET.

SIR,—With reference to the letter by Professor Harvey-Gibson and others in your issue of Dec. 31st will you permit me to say that there appears to be nothing in my book which attempts to involve them in any responsibility for my statements. I mentioned these gentlemen merely to acknowledge (properly, I hope) the help and encouragement which I have received from them. I alone am responsible for all the statements contained in my book.

These statements depend upon what I believe to be observed facts. If your correspondents will do me the honour to point out exactly where I have been mistaken I shall be glad either to admit my mistakes or to discuss the matter further with them.

I am, Sir, yours faithfully,

Liverpool, Dec. 31st, 1910. H. C. ROSS.

AN INNOVATION IN THE INDIAN MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—In making some inquiries about the Indian Medical Service from a friend in that service, I have received the following information which my correspondent has no objection to my sending to you.

The papers in India have recently published the fact that a board is sitting at Simla to discuss the changing of the present military medical system for native regiments by withdrawing the I.M.S. officers from their regiments and starting a station hospital system. That the authorities are in favour of this change is shown by the published speeches of the Director-General and Commander-in-Chief at a recent dinner held at Simla. To discuss the *pros* and *cons* of this question would be extremely lengthy; suffice to say that the majority of I.M.S. officers and officers commanding native regiments, if they were asked their opinions, would register them against the new proposals. The only persons who would seem likely to gain would be the senior I.M.S. officers—men of 20 years' service—who would command the "station hospitals" and draw an extra allowance, saved no doubt at the expense of the juniors, for the Government will allow no extra money for the new system. It is improbable that the scale of pay, entered in the prospectus of the I.M.S. as consolidated pay for an officer in charge of a native regiment, would be diminished. But it is quite common under present conditions for such an officer to have charge of another regiment in addition to his own at an extra salary averaging Rs. 50 per month throughout the year. This allowance would, under the new conditions, be lost, and therefore the consolidated pay should be increased by a corresponding amount.

Another allowance likely to be lost under the proposed system is that for the keep of horses for cavalry officers. Under present conditions an officer below the rank of major receives an allowance of Rs. 60 a month for two horses, or above the rank of major Rs. 90 for the upkeep of three horses. These will, however, be just as necessary under the new system. It would be much fairer in the service as it is now if, instead of some officers being allowed three, some two, some one horse, and some none, all drew Rs. 30 per month for one horse, like all other officers with native infantry; for when one is moved from a cavalry to an infantry regiment, or *vice versâ*, a warrant in many cases cannot be drawn for the carriage of horse by train on the grounds that at one end or the other of the journey he is not entitled to a charger. This is a very severe hardship in the frequent changes of the early years of service.

Another change that it would be desirable to make is the allowance of gratuities or bonuses to officers on retiring after the completion of short periods of service. These bonuses are allowed to officers in the R.A.M.C., £1000 being given on retirement at the end of eight years' service and larger sums for different periods in proportion. Similar proportionate allowances should be made for I.M.S. officers, so that they may retire if they so desire at the end of eight or more years with as little loss as possible. Many I.M.S. officers have elected to stay in military employment; indeed, many must have entered the service because they like the life regimental, with its pleasant good-fellowship and fair certainty of a home settled for four or five years at the time. It is likely that many such would not care to stay under the new system, in which they will no longer "run their own show," but be liable to have for their commanding officer—who writes their yearly confidential reports—a native of India. To such, if the new system be introduced, the possibility of retiring after short periods of service should be allowed without greater loss than can be helped.

Lastly, the improvement in the R.A.M.C. of recent years referred to by the Director-General in his speech can hardly be attributed to the station hospital system of itself, but rather to such factors as the efforts of an eminent civil advisory board who have obtained money which has enabled them to make and equip such splendid modern hospitals as the Millbank, the Connaught, the Cambridge, and the Herbert, and provide a first-class nursing system the members of which are drawn from the best nurses of the London hospitals. The hospitals to be erected in India as part of the I.M.S., if the new system be introduced, are to be run without further Government grants.

The above remarks of my correspondent appear to me to be based with fairness upon a common-sense knowledge, and I recommend their consideration to those thinking of entering the service.

I am, Sir, yours faithfully,

London, Dec. 20th, 1910. X. Y. D.

WHY?

To the Editor of THE LANCET.

SIR,—It is said that the report of Admiral Sir John Durnford's Committee on the Naval Medical Department is only kept back till the Treasury has given its sanction to the financial proposals therein. From this we might conclude that the Admiralty proposed to give costly benefits to its medical officers. Yet it does not seem eager to give them benefits which cost it nothing. Another Honours List has appeared without any decoration for any officer of the Naval Medical Department. These honours cost the Admiralty and the country nothing, but exalt the lucky recipient and his brother officers. Unless it is just this encouragement the Admiralty fears, why can it not secure the same marks of appreciation for its officers that the War Office and India Office can get for theirs? Is the Admiralty careless of its medical officers, or is it jealous of them? In either case the Admiralty had better note that the other Services which deal more considerately with their medical officers have competition for the commissions they offer.

I am, Sir, yours faithfully,

Jan. 2nd, 1911. PUZZLED.

THE REBATE TO PRACTITIONERS ON THE PETROL TAX.

To the Editor of THE LANCET.

SIR,—Medical men using cars for their work are entitled to a rebate of 3*d*. per gallon on petrol used for that purpose up to December, 1909. After that date half this rebate is due to them. In December, 1909, I began to apply for my rebate. There was considerable delay, so I wrote to Somerset House. Then the excise officer called upon me and I got a form to fill up. After further letters I was told that I must get certificates from the dealers that the duty had been paid by them. About April I was informed that all was in order.

After another interval I was told that I must begin all over again, with a fresh form and certificates. About the middle

of the summer I was told that all was again in order. Now my letters receive a belated reply that the matter is having attention. It appears useless to apply for the 1910 rebate while things are like this. I should be glad to know if other medical men have obtained their rights for 1909 yet.

I am, Sir, yours faithfully,

Dec. 30th, 1910. MEDICAL MOTORIST.

RECENT PLAGUE OUTBREAKS IN RUSSIA AND THE FAR EAST.

FROM THE BRITISH DELEGATE TO THE CONSTANTINOPLE BOARD OF HEALTH.

Plague in Odessa and Neighbourhood.

FURTHER statistics have now been published of the plague epidemic in Odessa, the appearance of which was recorded in my last letter.[1] They are as follows: Between May 22nd and 26th, 1 case, 1 death; between July 5th and 10th, 1 case, 1 death; then, in successive weeks—

Week ending July	17th	...	6	cases,	2	deaths.
,, ,,	24th	...	10	,,	0	,,
,, ,,	31st	...	17	,,	3	,,
,, ,, August	7th	...	17	,,	3	,,
,, ,,	14th	...	16	,,	7	,,
,, ,,	21st	...	12	,,	1	,,
,, ,,	28th	...	17	,,	6	,,

bringing the totals, down to the last-named date, to 97 cases and 24 deaths. By Oct. 23rd the figures had reached 132 cases and 39 deaths, and a few cases were still occurring weekly, at least until quite recently. Early in September it was reported that a student in the University of Odessa had contracted the disease, apparently in connexion with laboratory work. Down to Sept. 14th all the cases had been of the bubonic type; on that date the first pneumonic case was seen; it was fatal, but was apparently not succeeded by others.

Towards the end of October the first case of the disease outside Odessa was seen. On the 27th of that month a woman and a child aged 8 years were found to be ill with plague in the village of Roxolani, 32 versts from Odessa. The patients were related, but lived in different houses; the infection was apparently brought from Odessa by a third person, related to both. This person himself returned to Odessa and died there from plague. It is thought that as early as Oct. 19th the infection was already in the village, as on that day two fatal cases of an unknown disease occurred there. The village is a large one of some 3000 inhabitants.

Plague in the Kirghiz Steppes.

The infected centres in the Astrakhan government, mentioned in my last letter, seem to have remained free from the disease since the dates there given. But in July plague appeared in the Asiatic province of Semiretchinsk; in two villages of the Atbashin quarter, in the Prjevalsk district of that province, there were 17 cases of pneumonic plague, all fatal, between the end of July and August 11th. Since then no further information has been published respecting this outbreak. In the Uralsk government, in the "5th village" (*sic*) of the Jambeitinsk district, there were 7 cases of plague, with 3 deaths, between August 10th and 14th. No further cases occurred subsequently.

Plague in Manchuria.

A serious epidemic of plague has recently prevailed in Manchuria. A telegram of Oct. 14th reported that on the 13th there had been 9 deaths, and on the 14th 17 cases with 4 deaths, from pneumonic plague in a village near the "Manchuria" station (on the Manchuria-East China Railway). The newspapers later reported that 4 deaths from suspected plague had occurred in the village of Akurai in the district of Tchita. About the same time the military governor of Transbaikalia announced that on Oct. 13th and 14th 28 cases of suspected plague had been seen among Chinese in the settlement round the station of Manchuria. By the 24th the totals in this settlement had reached 81 cases and 73 deaths. Apparently all the cases were of the pneumonic form, and all occurred among Chinese with the exception of two—a Russian *feldsher* and a sanitary employee. A telegram from Kharbin, dated Oct. 26th, stated that 9 Chinese had died from the disease at the mines of Tchalainor on the 24th. Sanitary commissions had been formed, it was stated, on the line between Kharbin and Manchuria.

It is further stated that the first cases in the above-named village of Akurai occurred in the family of a man who hunted *tarabagans*, or marmots—the animal which, as is now well known, is extremely liable at certain seasons to suffer from a disease closely resembling plague, and highly infectious to man. From time to time, in the columns of THE LANCET, I have summarised practically all that has hitherto been published with regard to this "*tarabagan* disease." The recent cases in the village of Akurai are held, it is said, to show clearly that the animal disease and human plague are in fact identical diseases.

The latest news from these centres is as follows: In the week ending Oct. 28th there were 4 cases of plague at Dauria station, 2 at the Tarbagatai mines, near Petrovsk, 34 at the station of Manchuria, and 25 deaths at the last. On the 27th a Chinese coming "from the West" died from the disease at Kharbin. Down to Nov. 1st there had been in all, at the station of Manchuria, 184 cases with 166 deaths among Chinese, and 4 cases, all fatal, among Russians. On Nov. 2nd there were 14 suspicious cases at Kharbin, and 3 certain cases, with 1 suspicious, at the Tchalainor mines.

(All the dates mentioned in the above letter are according to the old style, or 13 days behind Western European dates.)

Constantinople, Dec. 10th, 1910.

[1] THE LANCET, Oct. 29th, 1910, p. 1310.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Board of Guardians.

AT a meeting of the board of guardians on Dec. 21st, 1910, an important report from the infirmary management committee was presented. It recommended the establishment of a pathological and bacteriological laboratory and X rays department. The laboratory was required to make examinations of sputum, blood, and products of disease. It would also be required for the preparation of vaccines. The pathologist would make post-mortem examinations. It was estimated that a competent man, living out, to give his whole time to the infirmary, would require a remuneration of £250. The only alternatives were to send to the University or to omit this important factor from the work of the infirmary. The X ray department would be chiefly valuable for the diagnosis of internal diseases, such as stones in the kidneys and ducts, morbid conditions of the abdomen and chest, and small lesions. It would also be of value for the treatment of ringworm, lupus, rodent ulcers, &c. It was thought that an operator could be engaged to attend at the infirmary as required for about £50 per annum. Mr. Darby, in presenting the report, pointed out that investigations had taken place in order to ascertain the class of patients with whom they had to deal. There were about 4000 cases coming to the infirmary every year, and of these 3000 could be classed as ordinary hospital cases—cases for whom the alterations suggested would provide. The objection to sending specimens to the University was that the medical men referring cases wanted results more quickly than was possible if the specimens were sent there for examination. It was also important that the examinations should be made by the man who took the specimens. After some discussion it was agreed to postpone decision on the matter until the next meeting.

Hospital Sunday Fund.

At the annual meeting on Dec. 20th, 1910, the statement for the year was presented. This showed that the sum of £6168 0*s.* 6*d.*, the total of the year's collection, was the largest amount ever raised by the fund. This result was attained by a special donation of £1250 given by Colonel Howard Wilkinson, chairman of the General Hospital, for the endowment of a bed. Apart from that donation, the amount was practically the same as last year. The honorary secretary, Mr. F. Impey, directed attention to the growing tendency on the part of some churches to set aside a portion of the collections for the purchase of tickets for their own

distribution instead of handing over the whole amount to the fund. If this developed it would undermine the whole system upon which the collection had been built up. They overlooked the fact that the money provided by the Hospital Sunday Fund had, ever since its inception, been a free gift. If it had not been for this fact the hospitals could not continue to treat, as they did, absolutely free of cost, and in the greater number of cases without recommendations, those people who were unable to pay for treatment. The apportionment of the collections, exclusive of special donations, is as follows:—£1258 to the General and Queen's Hospitals; £125 16*s.* 1*d.* to the General Dispensary, Children's, and Eye Hospitals, Deaf and Dumb and Blind Institutions; £88 1*s.* 3*d.* to the Women's, Homœopathic, Orthopædic and Spinal hospitals, the Birmingham Sanatorium, District Nursing Society, and Lying-in Charity; £54 10*s.* 4*d.* to the Skin and Urinary and Ear and Throat Hospitals and the Moseley Convalescent Home; and £12 11*s.* 6*d.* to the Dental Hospital.

First Southern General Hospital, T.F.

Lieutenant-Colonel Jordan Lloyd presided at the annual supper on Dec. 17th, 1910. The prizes won by the men during the year were presented by Colonel W. P. Whitcombe. Lieutenant-Colonel Barnsley, in proposing the toast of "The First Southern General Hospital," said that three years ago a skeleton was produced by Mr. Haldane, and he was proud to know that in that division at least it had been clothed with flesh, and in no department so strikingly and successfully as in the medical. He congratulated Colonel Whitcombe that so much had been accomplished in such a short time and with such attention to detail. One could not help appreciating the patriotism and devotion of those eminent members of the medical profession in Birmingham who had supported the work, and were doing their best to see that should the need arise they would be found thoroughly efficient. Lieutenant-Colonel Lloyd, in responding, said that they had entered on the movement solely with the desire to do their best for their country and their fellow men. The First Southern General Hospital was in a state of efficiency. A great amount of practical work had been carried out during the past year, and they had arrived at such a point that they were prepared to deal with anything that might happen at short notice. They were ready even if the country were invaded next week.

Jan. 2nd.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

University of Liverpool: Medical Students' Annual Dinner: The New Associate Professor of Pathology.

THE annual dinner of the students of the medical school was held at the Exchange Hotel on Dec. 17th last. Mr. R. W. Murray, surgeon to the David Lewis Northern Hospital, occupied the chair, Dr. E. E. Glynn filling the vice-chair. A large number of the staff of the united clinical School were present, as also were guests from the medical schools at Manchester and Leeds. The dinner proved a great success, topical songs adding to the enjoyment of the repast.—On the recommendation of the Faculty of Medicine and Senate, the Council of the University has conferred the title of "Associate Professor" upon Dr. Glynn. For the last six years Dr. Glynn has been lecturer in pathology at the University, and has proved a valuable assistant to Sir Rubert Boyce, the professor of pathology.

Medical Men and Medical Certificates: A Committee's Grievance.

At the last meeting of the Runcorn education committee the chairman stated that it was a common practice for medical men, when certifying that a child was unable to attend school, to neglect to fill in the nature of the illness on the certificate, although the teacher was required to fill in an elaborate form, supplied by the county council, stating the nature of the illness. He mentioned that some of the medical men resented being asked the cause of the illness. He thought it should be made known that the request was necessary, and not the mere caprice of a teacher. Mr. Redman (county inspector) said this was an old-standing trouble. In some places practitioners had taken a very strong line with regard to it. They would not state what the illness was on principle. The present arrangement was not satisfactory. It was resolved to write to the medical men asking them to fill in the certificates.

Jan. 3rd.

LEEDS.

(FROM OUR OWN CORRESPONDENT.)

The General Infirmary and Multiple Appointments among the Staff.

IN an annotation in THE LANCET of Dec. 17th, 1910, headed "Pluralism and the Leeds General Infirmary" reference is made to the recent passing of certain rules restricting in some measure the holding of other hospital appointments by members of the honorary staff. Teaching appointments at the university and consulting appointments at other hospitals, of course, are not touched by this restriction, but members of the full staff must not hold any other hospital appointment, and members of the assistant staff may not hold more than one other hospital appointment, which, however, must not involve the charge of beds. In a leading article in THE LANCET of Dec. 24th on Pluralists in Medical Posts these rules are commented on with favour as follows: "The rules display very clearly the modern feeling towards pluralism in medical appointments, and are wise in their different treatment of the full and assistant staffs." The object of this further reference to the subject—of which the report, so far as it goes, is quite correct—is to point out that the changes were made not solely at the instigation of the lay members of the board, but after a full discussion of the whole matter by the weekly board, which in Leeds, happily, consists not only of the annually elected lay members but also of all the members of the honorary staff, from the senior consultant to the junior assistant. The voting power of the honorary staff is very properly limited to eight votes so as to leave the ultimate verdict, in the event of a purely party vote—an occurrence as yet unknown—in the hands of the lay members. Every member of the honorary staff therefore had an opportunity of discussing the matter and most of them did so, and the ultimate recommendation of the rules to the general meeting of the subscribers was carried without opposition from the members of the staff, by whom the alterations were almost unanimously approved. The bare announcement of an alteration in rules, carrying with it, as these do, some interference with the freedom of the members of the staff, might imply some discontent on the part of the board of management and raise visions in the minds of those not acquainted with the happy relations which have always existed in Leeds between the lay and the professional element of an antagonism which does not exist. Nor must the rules be taken purely by themselves—that is to say, without regard to the local conditions, such as the number of other charitable institutions in the city and the existing rules of the infirmary. In the first place, every member of the full staff is already under the conditions imposed by the new rules—that is, holding no other hospital appointment—and is fully of opinion that his position at the infirmary affords full scope for his energies, so far as hospital work is concerned. A recent rule, which applies to the present members of the staff as well as to future members, is that all members of the assistant staff are from the day of their election entitled to the use of a certain number of beds. A restriction as to what duties they may undertake outside the walls of the infirmary is not, therefore, unreasonable. During the discussion of the new rules representations were made by some of the other charities of the city,—namely, by the Public Dispensary, the Hospital for Women and Children, and the Association for the Prevention and Cure of Tuberculosis. It was at once seen, however, that the Hospital for Women and Children would not be injured in any way. The number of patients treated in the wards of the infirmary for diseases peculiar to women calls for all the energies of the honorary officer attached to the department of obstetrics and gynæcology, and, as a matter of fact, the only two occupants of the post resigned their positions at the smaller institution when they were in succession appointed to the infirmary. An honorary physiciancy at the Public Dispensary—a most valuable position—is often held by a member of the assistant

staff of the infirmary, but it has been the custom if any one of the three honorary physicians of the dispensary is appointed to the infirmary for that officer to resign his dispensary appointment in favour of anyone who is not in general practice, and who is therefore eligible for the post. If, however, he is promoted to the full staff of the infirmary before he has severed his connexion with the dispensary, he will, under the new rules, be called upon to do so, but in order that the dispensary may not be inconvenienced it has been arranged that the resignation need not take place until 12 months have elapsed. The only real difficulty arose in connexion with the appointments at the Association for the Prevention and Cure of Tuberculosis, which involves the charge of beds. To meet this special case a new rule is being formulated which will ensure the services of at least one man of infirmary standing. The general terms of this rule have been agreed upon by the board, but as it has not yet been submitted to the general body of the governors it must not be discussed here at present.

Jan. 3rd.

BRISTOL AND THE WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

Bristol School for Mothers.

ABOUT a year ago the foundation of a "School for Mothers" in St. Philip's, an East-end district of Bristol, was announced in these columns. The first report, which has just been issued, is a distinctly encouraging record. The school, which has been founded on the lines of the well-known institution in St. Pancras, is open every Friday afternoon in the Broad Plain Girls' Club House. Mothers bring their children for advice as to feeding and such matters, and classes of a simple and practical kind are held. The work is done by a staff of voluntary workers in conjunction with Dr. Annie Cornall. A provident club for women expecting confinement has been started. So far it is not considered necessary to provide dinners for nursing mothers, though a few who are ill-nourished are receiving suitable meals privately in a neighbouring restaurant. Dr. D. S. Davies, the medical officer of health, takes an interest in the work and gives valuable support and help. In the year that is completed 99 mothers have attended the school and the work is expanding steadily.

Christmas in the Bristol Hospitals.

As usual, Christmas was by no means forgotten in the various hospitals of Bristol. The Christmas-tree celebrations are so arranged that they are held on different days at the different institutions, so that the public is enabled to allot its moral and financial support evenly. This year Miss Hayes, the Lady Mayoress, acted as distributer of presents at the Royal Infirmary, while Lady Howell Davies and Mrs. T. C. May performed a like office for the General Hospital, and the Hon. Mrs. Irby at the Children's Hospital.

Bristol University Colston Society.

The twelfth annual dinner of the Colston Society is to take place on Monday, Jan. 16th, in the large hall of the University. Sir Alfred Hopkinson, Vice-Chancellor of the Victoria University of Manchester, will be the guest of the evening. The circular letter from the President, Mr. J. H. Howell, announcing this, states that the society wishes to raise its annual contribution to the University funds from £450 to £1000; to this end he appeals for new subscribers and larger subscriptions. The society proposes to establish a University Colston Fund for industrial, agricultural, and public health research, to be administered by a committee representing the society and the University Senate, which shall decide on the scope and direction of the grants to be made. Such work would, of course, be carried on within the precincts and under the auspices of the University.

The Bristol General Hospital.

Lord Winterstoke has given £5000 to the special fund which is being raised for the extension of the Bristol General Hospital.

Interesting Function at the Bridgwater Hospital.

After the annual meeting of the subscribers of the Bridgwater Hospital, which was held on Dec. 21st last under the presidency of Mr. E. Jardine, M.P., Mrs. Jardine unveiled in the hall of the institution two memorial brasses which have been erected in memory of the late Dr. W. L. Winterbotham and Dr. F. J. C. Parsons, two members of the honorary medical staff. Mrs. Jardine afterwards uncovered a bust of the late Dr. Jonathan Toogood, who founded the charity about a century ago.

New Isolation Wing for the Weston super-Mare Hospital.

On Dec. 20th last a new isolation block, which has been recently added to the Weston-super-Mare Hospital, was formally opened in the presence of a large gathering. The building contains two wards, each of which will accommodate two patients, and a nurse's room, bathroom, kitchen, &c., have also been erected. The cost of the undertaking has been over £1500, and this sum has been generously given by Mr. R. H. Hooker of Weston-super-Mare.

District Medical Officers and Old Age Pensioners.

Some discussion has recently taken place in reference to the duties of district medical officers and the attendance of old age pensioners. At the last meeting of the Tavistock (Devon) board of guardians it was reported that some of the district medical officers were prepared to attend old age pensioners without any application being made through the relieving officer, whilst others stated that they should require orders from the relieving officers.

The Devon and Cornwall Sanatorium for Consumptives, Didworthy.

At a recent meeting of the committee of the Didworthy Sanatorium it was stated that the council of the King Edward's Hospital Fund for London had allocated £875 to the institution on the condition that 10 beds should be reserved during 1911 for patients from the London Hospital, Guy's Hospital, and the City of London Hospital for Diseases of the Chest.

Jan. 3rd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Local Government Board and Dairy Inspection.

A FEW weeks ago, as recorded in THE LANCET of Nov. 19th, 1910, p. 1519, the King's Bench Division unanimously refused the application of the Local Government Board for a *mandamus* directed to the Kilmallock rural district council ordering the council to obey the Order of the Local Government Board regarding the appointment of a veterinary surgeon as inspector of dairies and cowsheds. Last week the Court of Appeal, consisting of the Lord Chancellor, Lord Justice Holmes, and Lord Justice Cherry, unanimously reversed the decision of the King's Bench and directed the order of *mandamus* to issue. Lord Justice Holmes, in a reasoned judgment, held that the Dairies and Cowsheds Order, 1908, was not *ultra vires*, and also that it was within the power of the Local Government Board to define the qualifications of the inspector to be appointed, as it had done in this case—namely, that he should be a qualified veterinary surgeon. Lord Justice Cherry was not quite confident of the validity of the Dairies and Cowsheds Order, but thought it a question which the court was not called on to decide. I have not heard whether the Kilmallock council intends to take the matter further. If not, the Local Government Board is likely to proceed to enforce the Order on all the councils which up to the present have remained obdurate. It was stated in court that no less than 156 local authorities had already acted on the Order.

Old Age Pensions and the Poor-law.

With the end of the year 1910 the pauper disqualification is removed as regards the eligibility for old-age pensions. This week, therefore, will see a large increase in the number of pensioners. Practically the whole body of old people in receipt of out-door relief will exchange such relief for the State pension. Out-door relief rarely exceeds a couple of shillings a week, with a certain stigma attached. Of the old people in workhouses, however, a much smaller proportion than was expected will claim discharge and a pension. Poor-law guardians all over the country are much surprised at the unwillingness of the old people in their care to leave the shelter of the workhouse. One board, indeed, has decided to dismiss all inmates entitled to receive a pension—a proceeding of more than doubtful legality.

Water-supply of Western Watering-places.

One of the chief causes of the comparative failure of Irish seaside resorts to attract the favour to which their natural surroundings entitle them lies in a defective water-supply and drainage. Last season much alarm was caused among visitors to Bundoran, a beautiful village in Co. Donegal, by the report of an outbreak of typhoid fever, over a dozen cases occurring within a few weeks, and probably many hundred visitors were scared away. Rosses Point, Co. Sligo, suffers in similar fashion. Situated in a beautiful and interesting country, it possesses one of the best golf courses in Ireland, and is easily accessible from Dublin. Though capable of very extensive development, it is without either a trustworthy water-supply or a drainage system. Water is drawn from wells and pumps, and the sanitary receptacles are privies and cesspools. The district medical officer of health, Mr. John Laird, drew attention in his recent reports to the urgency of these matters, pointing out that refuse must percolate into the wells and pumps. Several cases of typhoid fever, with three deaths, have been reported during the past year. Notwithstanding that last year and on many previous occasions Mr. Laird made similar reports the district council has refused to move in the matter.

Extra Professional Assistance in Poor-law Medical Work.

By the Local Government Board regulations a Poor-law medical office is entitled, when necessary for purposes of diagnosis or treatment, to summon outside medical aid, the fee to be paid by the guardians. Many boards of guardians frame scales of fees, usually quite inadequate, and seek to impose them on the consultant, who may be unaware of their existence. Recently at Cookstown, Co. Tyrone, Dr. Charles Graves, requiring help late at night in the treatment of severe wounds, summoned Dr. R. Campbell of Belfast, fifty miles away, who motored down, arriving at 2 A.M. After operating he demanded the very moderate fee of 10 guineas. The fee according to the guardians' scale was *one guinea and car hire.* While several guardians denied the medical officer's right to call outside professional assistance unless he could get it at the guardians' scale, the magistrate, with better sense, ordered payment of the fee.

Knighthood for Dublin Physician.

In the list of New Year Honours a knighthood has been conferred on Dr. Joseph Michael Redmond.

Condition of the Irish Primary Schools.

Considering the deplorable hygienic condition of the primary schools in Ireland it was only natural that at a meeting of the central executive committee of the Irish Teachers' Organisation, held in Dublin on Dec. 27th, 1910, the following resolution should have been passed:—

> That we beg to remind the Chief Secretary of the urgency of the question of the heating and cleaning of national schools, and request him to immediately see that his promise be redeemed, as all the conditions laid down by the Treasury have been fully complied with.

A very sympathetic letter was read to the meeting on this question of the schools by the Countess of Aberdeen. Mr. Birrell is in the Cabinet, and it is considered his duty to redeem his promise. A man of his weight in the Government could easily, if he set his mind to it, make the Treasury yield on a point so small, yet so vital to the health of the children of Ireland. The first great increase in the tuberculous death-rate in Ireland is coincident with the school age, and that increase grows steadily through the whole period of school attendance.

Diphtheria in Dundalk.

At an inquest on an infant held in Dundalk Workhouse on Dec. 27th, 1910, it came out in evidence that, though ill of diphtheria, it had been allowed to remain for eight days without medical attendance. It appeared that the coroner had gone to the trouble of getting paragraphs put in the newspapers warning parents that they should have their children attended to immediately on their showing any symptoms of diphtheria, and he intimated that in any case in future, where a child died from this disease without being attended to in proper time, he would hold an inquest in order to direct public attention to the parents' neglect. It was, he said, scandalous that such a state of affairs as this should exist. A number of children had lost their lives in consequence of this delay, while from the same cause others had had only hair-breadth escapes from death. The head of the police present said that he must take a note of the case mentioned by the coroner, Mr. J. C. Sellars, a medical man, for inquiry with a view to a prosecution under the Children Act for neglect in procuring medical treatment for a sick child.

The Abbey Sanatorium, Belfast.

Mr. Robert Hall, visiting physician to the Abbey Sanatorium, which is under the management of the Belfast board of guardians, has just issued his report for the half-year ending Sept. 30th, 1910. During that period 631 patients were under treatment, and of these 366 were discharged or died, an excess of 47 over the number in the corresponding half-year of 1909; while the remaining 265 were still under treatment. Of the patients discharged 34 were greatly improved, 177 improved, 33 not improved, and 30 had not been long in the institution. There were 92 deaths. The duration of treatment in the case of the patients discharged as greatly improved was 302 days for men and 280 days for women; improved, 162 and 123 days respectively; not improved, 143 and 57 days; not long in sanatorium, 9 and 11 days. As to the ages of patients, 6 were under 10 years, 16 were between 10 and 15 years, 60 between 15 and 20 years, 47 between 20 and 25 years, 60 between 25 and 30 years, 45 between 30 and 35 years, 41 between 35 and 40, and between the ages of 40 and 65 there were 143 patients. The youngest patient was 6 and the oldest 68 years of age. As to occupations, there were 19 spinners, 13 schools girls, 10 weavers, 8 servants, 8 stitchers, 6 hawkers, and 100 labourers. For the half-year the receipts were £489 5*s.* 11*d.* and the expenditure £6503 1*s.* 1*d.* The average cost per week of each patient was 13*s.* 9*d.*, which was increased by 3*s.* 6¾*d.* per week, representing the repayment of loans. The slight increase in the total expenditure was due to an increase in clothing purchased during the six months, the other charges being practically the same as in 1909.

William Smyth, M.D. R.U.I., J.P.

I regret to announce the death of Dr. W. Smyth at his residence, Banbridge, Co. Down, on the night of Dec. 31st, 1910. A student of Queen's College, Belfast, Dr. Smyth graduated as M.D. of the old Queen's University of Ireland in 1878. After some time spent in England Dr. Smyth returned to his native town in 1880, and there built up an extensive practice. He was medical officer to the Royal Irish Constabulary and to the Post Office. For a time he was a member of the Banbridge board of guardians and of the town commissioners, but failing health (owing to chronic asthma) obliged him to give up these positions. He was a J.P. for Co. Down. Dr. Smyth leaves a widow and six children to lament their loss.

Health of Belfast.

The report of the medical officer of health as to the health of Belfast during the period between Nov. 13th and Dec. 17th, 1910, presented at the usual monthly meeting of the city council, held on Jan. 2nd, showed that 212 cases of infectious disease had been notified—viz., 1 of typhus fever, 2 of enteric fever, 149 of scarlet fever, 2 of simple continued fever, 2 of puerperal fever, 34 of diphtheria, and 21 of erysipelas. 80 cases of pulmonary tuberculosis were also notified. The epidemic of scarlet fever has not yet abated, there being 149 cases notified during the month, as compared with 118 in the preceding four weeks. The average annual death-rate from all causes was 17·6, as compared with 15·5 in the preceding month, and 22·7 in the corresponding period of 1909. The number of deaths of children under one year old per 1000 births during 1910 (as calculated on the number of deaths registered during the 50 weeks ended Dec. 17th, 1910) was 144, as compared with 135 in 1909, 147 in 1908, 135 in 1907, and 143 in 1906. The excess-rate is largely due to the number of deaths caused by measles, of which there were 590 registered, being equal to a rate of 1·3 per 1000 of the population, which rate is as high as that registered from zymotic disease during the year 1909.

Christmas.

At the various Belfast hospitals and at many of the county infirmaries and union workhouse hospitals in the North of Ireland, the patients were entertained in the usual way, either by the boards of management, or by friends, at Christmas.

Jan. 3rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Thermo-anæsthesia in Zona.

AT a recent meeting of the Société Médicale des Hôpitaux M. Ramond said that from observations made on 43 cases of primary zona at the Hôpital de la Pitié and the Hôpital Saint Antoine he had found that, in addition to the well-known disorders of sensation, there was almost constantly a condition of thermo-anæsthesia which might persist for several months. Half of the cases also presented the condition of bulbo-capillary reflex, or "gooseskin," a phenomenon which could be easily elicited by rubbing the skin of the affected part with the finger-nail. Moreover, in three cases there was glycosuria for periods varying from 7 to 15 days, and in one case there was obvious polyuria with or without frequent micturition, just as in certain forms of sciatica. The best treatment for the pains which outlasted the eruption seemed to be the injection of sterilised air.

Preventive and Curative Treatment of Beri-beri.

At the November meeting of the Société de Pathologie Exotique M. Bréaudat and M. Denier reported that in the epidemic of beri-beri which occurred at Cape Saint Jacques from June 1909, to April, 1910, they had treated patients with the outer covering (*son*) of paddy, which corresponded to the bran of European cereals. They came to the conclusion that in this epidemic the disease presented both the dry and the dropsical form with a predominance of cardiac symptoms. The above-mentioned product obtained from paddy did not in general cause any digestive trouble. It was used both for prophylaxis and also as a remedy. For the former purpose it was given in doses of 40 grammes per day, and principally to the detachment of tirailleurs, on whom it had a well-marked protective influence, but in the case of men who were already suffering from the disease it did not seem to produce any effect. Used as a remedy in doses of 40 grammes and upwards, without any other medicinal treatment and without any change in the food given to the natives, its results were identical with those of the numerous therapeutic agents hitherto recommended in association with a European *régime*, while it possessed the advantages over the latter of being simple, cheap, and always obtainable by the natives.

Foreign Lepers in Paris.

At a meeting of the same society, held on Dec. 14th, 1910, Mr. Jeanselme gave the results of observations made on 61 cases of leprosy which he had seen in Paris partly in private practice and partly in a hospital. They had come principally from the West Indies, from Guiana, and from Brazil. Of these 61 lepers moving about freely in Paris 38 presented manifest signs of the disease, including purulent rhinitis, bucco-pharyngeal lesions, laryngitis, and leprous orchitis. Of these 38 carriers of Hansen's bacillus 26 were hospital patients but were not properly isolated, and 12 lived at home. The lepers who came to Paris belonged to all classes of society. Those who were financially well off lived in hotels, furnished lodgings, and boarding houses; they engaged servants, and in summer-time they visited mineral water resorts and sea-side bathing places, scattering the germs of infection wherever they went. Some of those in humbler positions were not less dangerous. M. Jeanselme quoted the case of a Jewish pedlar from Constantinople who carried merchandise (and at the same time the bacillus of leprosy) from village to village. Among the 61 lepers there were three school teachers, a valet, and even a nursemaid. The latter, in whom the disease was complicated with rhinitis, had charge of a child 5 years of age in a middle-class family; a fresh development of her symptoms compelled her to pass two years in the Hôpital Saint Louis, and on recovery to some extent she returned to her former employers, who gave her the care of a new-born child. Leprosy is not one of the compulsorily notifiable diseases, but some supervision of such cases is urgently required. Infected children ought to be removed from schools and lepers ought to be prevented from following certain occupations.

Ehrlich's Remedy "No. 606" (Arsenobenzol) in the Treatment of Diseases of the Nervous System.

At a meeting of the Société Médicale des Hôpitaux, held on Dec. 16th, 1910, M. Marinesco said that in two cases of cerebral gumma with probable implication of the meninges he had used arsenobenzol with good results, whilst in four cases of syphilitic hemiplegia there was an improvement but in a less degree. In three patients suffering from tabes the shooting pains were relieved; in a fourth case of the same disease in a quite early stage the Argyll Robertson sign disappeared. In a fifth case a superficial perforating ulcer of the sole of the foot healed up in a few days. In six cases of general paralysis there was no perceptible good effect, even when the disease was only just commencing. In two syphilitic patients suffering from early facial paralysis and neuralgia the results were very satisfactory.

Chronic Poisoning by Carbon Monoxide.

At a meeting of the Academy of Medicine held on Dec. 19th, 1910, M. Morel and M. Mouriquand gave particulars of a case in which a number of persons attending a laboratory in Lyons suffered from poisoning by carbon monoxide. These individuals, about 40 in number, passed about eight hours in the laboratory every day except Sunday, and 35 of them presented very similar symptoms of illness, the cause of which was at first unknown, but was eventually traced to the presence of abnormal amounts of carbon monoxide in the atmosphere of the rooms, the proportions varying from 1 part in 10,000 to 1 part in 1000. It was derived from numerous leakages of illuminating gas containing between 12 and 14 per cent. of carbon monoxide, as the addition of water gas to illuminating gas is permitted in towns. It proceeded also, but only in winter, from the defective joints of a heating apparatus. The patients suffered from nervous symptoms, digestive troubles, with hyperchlorhydria, and transient albuminuria and glycosuria. The symptoms appeared in winter when the heating apparatus was in use and disappeared with absolute regularity during the periods of vacation.

The Huchard Bequest.

Dr. Huchard, who was a member of the Academy of Medicine and whose obituary was published in THE LANCET of Dec. 24th last, has left to the Academy of Medicine a sum of 100,000 francs for the foundation of an annual prize to be called the "Henri Huchard Prize awarded by the Academy of Medicine for devotion to medical duty: In memory of Marcel Huchard." The intention of the testator was to assist students who had either suffered in consequence of their devotion to science or were unable to continue their studies.

Jan. 2nd.

CONSTANTINOPLE.

(FROM OUR OWN CORRESPONDENT.)

The Grievances of the Medical Students.

THE following two regulations in the new medical programme submitted by the professors of the Medical Faculty to the Minister of Public Instruction have excited keen protest from all the medical students. First, it is enacted that every student must be examined in all the subjects at one fixed period. Second, a student who has failed three consecutive times in one and the same subject will have his name erased from the list of the candidates. Since these two new regulations apply also to the final students, these latter have determined to boycott the Medical Faculty and have unanimously refused to sit for the examinations until the named regulations are modified. I consider that to some extent the students have right on their side. Some of these students have spent in their medical studies six or even seven years and under extremely unfavourable conditions, inasmuch as the teaching and equipment of the Medical Faculty are not of a satisfactory character as yet, and in some ways altogether primitive. To make it possible that a student after seven years' study should lose for ever the results of his labours because he failed three times in one subject seems a most drastic proceeding, a revolution which should not have been attempted in this sudden way. In the military department of the Medical Faculty the position will be still worse under this reforming scheme, as here a student loses his medical career after a second failure in one subject. The students have submitted their unanimous protest to the Minister of Public Instruction, but without attaining any satisfactory result. In their protest they rightly dwell upon the fact that during the old *régime* they could not attend the lectures in a regular way, as owing to the political disturbances the Medical Faculty was closed for months, while a

number of the students were kept in prison for more or less long periods under the suspicion that they adhered to dangerous principles. Modifications in the new programme have been promised to the students as on previous occasions, but it now seems that the authorities do not intend keeping these promises.

Count Tolstoy: A Personal Reminiscence.

I had met my great compatriot only once, but to the end of my life I shall remember the profound impression of this meeting. It happened in a train going from Kieff to Odessa. Tolstoy always travelled third class. To be, at least for some short while, in his closer company I changed my ticket and accommodated myself opposite the count in a filthy railway carriage packed with peasants. Tolstoy delighted to mix with these, to converse with them on their needs and misery, and he always did it with that straightforwardness and naturalness which were such pronounced characteristics of the great man. On one station we saw a group of prisoners being despatched to Siberia. Tolstoy left the carriage and entered into conversation with them. Afterwards he made to me the following characteristic remark: "Government and society engender these outcasts and then send them to Siberia, or, still worse, execute them." When I ventured to ask what, then, should be done with such outcasts, Tolstoy answered: "What do you do with sick and diseased and insane persons? And do you really think that these prisoners are worse than those who condemned them?" Tolstoy had some perplexing incongruities of mind. Thus he disliked medical men and he felt an uncontrollable antagonism to Jews. When the latter were persecuted he never raised his mighty voice of protest. Great as he was he could not rise, in this respect, above the general feeling of the fierce Russian antisemitism. As to medical men, he often ridiculed them and their science and never showed any confidence in their treatment. Yet with all that he was undeniably the greatest Russian of his time.

Dec. 29th, 1910.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Jewish Population in Vienna.

IN Vienna there is a considerable Jewish population, the vital statistics of which are fairly well collected by the Board of Health peculiar to these communities within the general community. A report has recently been issued by the "Cultusgemeinde," or board of guardians, from which the following figures may be quoted. In 1909 there were in Vienna 180,000 adherents of the Mosaic law, forming about 9 per cent. of the entire population of the capital. Their increase was 4 per cent. per annum, whereas that of the entire population was only 2 per cent. The influx of Jews from the country was not considerable, but the non-Jewish inhabitants were augmented by immigration. Thus the increase of the Jewish part of the population must be put down to three factors—namely, larger number of births, better care of the infants, and greater longevity. This can be substantiated by a few figures. There were 2502 Jewish children born alive in 1909, so that they increased the numbers of the community by 1·5 per cent., whilst the average increase of population in this city from this source is 1 per cent. The Jewish death-rate was 12·5 per 1000, while the general death-rate for Vienna was 16 per 1000. Only 185 Jewish infants under 1 year of age died in that year, being less than 9 per cent. of the total mortality, or 75 per 1000 births, whilst in Vienna the mortality of infants is 13 per cent. of all deaths, or 129 per 1000 births. That longevity is not infrequent amongst that part of the population is proved by the fact that 30 per cent. of all deaths happened in persons over 65 years of age. There were, for instance, 283 deaths at the age of 80 years, 134 between 80 and 90 years, and 14 deaths between 95 and 100 years. It is interesting to note that at these advanced ages there were more deaths of females than of males. As regards morbidity, leukæmia, diabetes, and neurasthenia were more frequent among the Jews than among their non-Jewish fellow citizens, whilst obesity with its concomitants, gout, rheumatism, and liver disorders, were frequent amongst women. The hospital registers, in which the religion of the patients is always noted, supply no evidence that mental diseases are exceptionally prevalent amongst Jews. On the whole, the report emphasizes the beneficent result of adherence to the religious rules of the Mosaic law and observance of its injunctions respecting food, personal cleanliness, and the care of pregnant women and infants.

The State Institute for the Care of Mothers and Infants.

In anticipation of the eightieth anniversary of his birthday the venerable Emperor expressed a wish that the money which was about to be laid out in celebrating that event should be made use of for the benefit of children. The suggestion was immediately followed and a large sum of money has now been collected, from which the Reichsanstalt für Mutter und Säuglingsfürsorge (Institute for the Care of Mothers and Infants) has been organised. The Emperor has graciously consented to be the Protector of the Institute, whilst some of the highest officers of the State hold various honorary positions in connexion with it. The following is an outline of the system according to which the work of the institute will be conducted. Every district hospital will be asked to send two members of its female nursing staff, and these women will at the institute be formed into classes and will receive instruction, lasting from three to six months, in all subjects pertaining to the management of infants. On the conclusion of this instruction the nurses will return to their hospitals. Midwives will also be eligible for these courses of instruction, and as they are very often the principal advisers of young mothers with regard to the upbringing of their families they will have opportunities of combating popular errors and superstitions relative to the first year of a child's life. It is also intended to organise a special order of children's nurses. In Germany and some other countries the necessity of preliminary training for such positions is recognised, but in Austria there is at present nothing of that kind worth speaking of. An important branch of the institute will be the post-graduate classes for medical practitioners who desire instruction in the care of healthy children, as well as for those who wish to qualify for the position of head of one of the branch institutes to be created later in various cities. Classes will also be formed in which women will be taught how children should be fed and brought up. In connexion with these classes there will be "consulting days," on which mothers who can produce evidence of being in necessitous circumstances may bring their infants to the institute, where they will receive advice as to feeding and other problems of health and disease. An important department of the Institute will be a school, in which young persons suffering from either moral, psychical, or physical defects will be received, educated, and taken care of, special attention being paid to feeble-minded children, to those afflicted with hereditary taints, and to sufferers from the after effects of diseases of the brain and nervous system. A staff of specially trained teachers, medical men, and nurses will be constantly at work, and as the practical care of such afflicted children is hardly known here for the lower classes of the population, the necessity for it is really urgent. The system adopted at the institute will provide for the training every year of 20 special children's nurses and 40 midwives and hospital nurses; there will also be accommodation for 40 infants and 20 older children for six weeks each, or 550 children per year. It is estimated that the children will stay in the infants' department about 15,000 days and in the educational department about 7500 days. It is also expected that many deserted mothers will be able to get employment as nurses after attending the schools and that deserted children will be taken care of. Naturally the effect of the institute will soon be felt all over the empire, if every year only a few hundred mothers and midwives profit by its teachings.

Dec. 26th, 1910.

CANADA.

(FROM OUR OWN CORRESPONDENT.)

Cocaine in Montreal.

IN one police district alone in Montreal there are said to be over 600 young people of both sexes addicted to cocaine. So widespread has the habit become that judges have made several pronouncements upon the danger to the public, one asserting that "Cocaine is the worst danger to our social life in Montreal." The Dominion parole officer states that 12 per cent. of the prisoners ascribe their downfall to cocaine. From Sept. 10th to Nov. 20th the police records

show that 75 people have been arrested for selling the drug. 150 arrests and convictions have been made in the Recorder's Court since last May. Recorder Weir tells of the stream of mothers visiting him and imploring the authorities to save their children. The vice is most prevalent amongst young people between the ages of 16 and 24. In the very heart of the city there is said to exist a Cocaine Club, where children even may get the seductive drug. The Federal authorities are being appealed to to amend the criminal code with regard to cocaine.

Ontario Medical Council's Wide Powers of Discipline.

In December, 1909, an Ontario practitioner was charged with using an instrument on an unmarried woman for an unlawful purpose. He was acquitted by the courts. The College of Physicians and Surgeons of Ontario instituted an inquiry into his conduct under that section of the Ontario Medical Act which renders a practitioner liable to have his name erased from the Register if guilty of any infamous or disgraceful conduct in a professional respect. The practitioner objected to the College making this inquiry after having been acquitted in the courts of law of the country, and therefore sought an order from the courts prohibiting the College of Physicians and Surgeons from investigating charges against him. The action for the injunction came before Mr. Justice Riddell of the Ontario bench, who refused the motion of the practitioner in question. The main objection to the College conducting an investigation was that the acts charged were crimes, and that the College could not inquire into a crime. Interpreting the Act, Mr. Justice Riddell states that the causes for removal from the Register of the College are divided into two classes—(1) Crimes which in Canada are felonies or misdemeanours; and (2) infamous or disgraceful conduct in a professional respect. In the former cases these are left to the criminal courts; if convicted the name is to be removed for such cause. Over the second class the criminal courts have no jurisdiction, and therefore the College must itself make inquiry. Mr. Justice Riddell says: "The purport of the Act is, that if a medical man has been publicly tried in a court of criminal jurisdiction and has been there convicted of an indictable offence against the people he no longer has any right to be a registered practitioner. If he has not been so convicted the College must inquire into the facts of an alleged misconduct, and if misconduct is proved, whether such misconduct be a crime or not, so long as it is infamous or disgraceful in a professional respect, it is quite the same as if the medical man has been convicted of a crime." If the finding of the College is not to the liking of the medical man he may appeal to the Divisional Court, appears to be Mr. Justice Riddell's summing up of the situation, one which certainly puts a heavy onus on the accused.

The Medical Witness and the Expert Witness.

The same judge addressed the Academy of Medicine, Toronto, recently on the above subjects. As a preface to his remarks the learned judge quoted the ancient joke as to the comparative degrees of liars, and said that the extraordinary antics of some men when called as medical experts were a disgrace to the medical profession. In the main the medical witnesses were honest. If the medical witness gave evidence contrary to the fact or contrary to his real opinion, he was a criminal equal with the man who plunders bank vaults by means of dynamite. The most striking or shocking examples were in cases where insanity was set up as a plea. Too much stress, however, should not be laid on difference of opinion *per se*, for opinion might be the result of honest thought and conviction. In law, too, there was the same divergence, and expert witnesses should not be expected always and necessarily to agree upon matters of opinion, whether in medicine or otherwise. After giving some sound advice for the guidance of the medical witness, he dealt with the expert witness, and thought there was grave danger of the medical profession being discredited by the competition for expert witnesses in damage suits and criminal cases, as many seemed to become advocates for one side or the other. He thought it would be quite possible to have a physician, or a board of physicians, of high standing appointed by the Crown, or retained as Crown counsel are retained in criminal cases. The evidence of such experts would be available alike for prosecution and defence. In certain criminal cases it is now the practice in Ontario to appoint two experienced alienists in the employ of the Ontario Government, whose whole duty it is to determine the exact facts and who are at the disposal of the defence as well as of the prosecution. The whole question is one which has been a puzzling problem to physicians, lawyers, and jurists alike. The suggestion has been made that here in Ontario the Ontario Medical Association and the Ontario Bar Association should join forces towards having an expert testimony law placed on the statute books of the province.

Dominion Registration.

Dr. T. G. Roddick of Montreal has been successful in getting the medical councils of all the provinces in Canada to agree to the proposed amendment of the Canada Medical Act, 1902. This amendment has been introduced into the Canadian Parliament, now in session, by Dr. Black, member for Hants, Nova Scotia. If agreed to by the Federal Houses it will then have to be ratified by the local legislatures of each province. As all the provinces, so far as the profession is concerned, have assented to the amendment, there is now every likelihood of Dominion Registration becoming the law of Canada. Then reciprocity will be secured with the General Medical Council of Great Britain.

Dec. 24th, 1910.

UNITED STATES OF AMERICA.

(FROM OUR OWN CORRESPONDENTS.)

Report of an International Commission on the Control of Bovine Tuberculosis.

AN International Commission, formed under the auspices of the American Veterinary Association and consisting of members of the medical profession, veterinarians, and some laymen of the United States and Canada, in a recent exhaustive report recommended that legislation regarding the control and eradication of tuberculosis among domestic animals be rendered uniform; that the laws of the United States and Canada and other American countries for the admission into America of animals from without be made stringent and as much alike as possible; and that the laws governing the inter-state and inter-provincial movement of cattle and that between different American countries be harmonised. In concluding its report the Commission suggests that provision should be made to carry on the work, either by continuing the Commission as at present constituted, or with such changes in the *personnel* as may be considered desirable.

Employer's Liability in the United States.

It has long been known that the United States is much behind European countries in laws safeguarding workmen from injury and guaranteeing to them compensation for loss of wages through disability from injury, or to their families in case of fatal accident. That ingenious appliances are not lacking is proved by the fact that the American Museum of Safety has recently opened in New York City a permanent exhibition of various machines and models which demonstrate simple, practicable safeguards adapted to the needs of the American employer for protecting the lives and limbs of his workmen. It is hoped that this exhibition, by showing that at least 50 per cent. of the present appalling number of accidents are preventable, will lead to proper legislation in the various States, whereby the employer shall be rendered criminally liable for not providing his factory with safeguarding appliances, as well as be forced to provide some system of insurance for the families of killed or injured labourers.

A Society of Medical Sociology.

A new medical society has applied for incorporation in the State of New York, and formulates its somewhat novel purposes as follows:—

Recognising the intimate relationship between disease and the social-economic system under which we live, recognising that many diseases are caused directly by our social and economic conditions, recognising that the efficiency or inefficiency of our treatment often depends upon the economic conditions of the patient, recognising that there are many problems deeply and vitally affecting the welfare of mankind which are left practically untouched by any existing medical society, the American Society of Medical Sociology has been organised for the purpose of studying radically all questions of a socio-medical nature, and invites your cooperation.

Organised Relief and Distress in New York.

The Charity Organisation of the City of New York in its annual report on Dec. 10th, 1910, says that the number of families cared for in the period covered by the report was 7616, as compared with 8172 in the previous period. The

relief disbursed amounted to $79,222, as against $84,625. Altogether the society disbursed for general work $132,377, a decrease of 7 per cent. There was an increase in the deficit in the funds for this work, however, of 22 per cent. The society considers it doubtful if the low figures of relief work in the years preceding the financial disturbance will ever be reached again because of the fact that the society is reaching persons who in former years would not come for help from organised charity. The amount of distress has been seriously increased by the general rise in the cost of all articles of food and clothing without any corresponding rise in wages. The organisation has been obliged to cut down its supplies of meat to each deserving family to twice weekly, to eliminate fresh vegetables, to reduce milk and butter to the lowest possible amounts, and it has well-nigh reached an irreducible minimum of tea and coffee. The effects of these reductions are already plainly apparent in the poorer physique of adult applicants for relief and in the stunted look of the children.

Public Exhibitions of Bacteriology.

The American Museum of Natural History is about to open a very completely equipped bacteriological laboratory. Physicians who desire certain specimens are at present obliged to send as far as Prague for them, unless some private laboratory happens to have what they want. This new laboratory will act as a base of supplies for similar laboratories all over the country. A series of public exhibitions is being arranged. These, together with public lectures on bacteriology under the auspices of the public school system, will, it is hoped, eventually have an excellent effect on the public attitude towards the medical profession, and demonstrate to the public the actual scientific basis of modern medicine.

Traffic in Rotten Eggs.

The New York Health Department has just inaugurated a crusade against the "rots and spots," as the eggs are called purchased by the cheaper class of bakers and confectioners. Whereas eatable eggs sell for about 2*s.* a dozen in the depth of winter, 1 pound of a mixture of rotten yelks and whites, or the contents of about 12 eggs, can be obtained by a baker for 1½*d.* This nefarious trade is hard to detect, for the cakes and bread made from bad eggs present a very good appearance.

Cholera.

Fear of the cholera has led to exceptionally careful examination of all incoming ships. On a ship arriving from Naples on Nov. 17th nine persons were found to be ill of cholera, and there had been two deaths from the disease during the voyage. News came recently from Quebec, Canada, that a case of cholera had been discovered on the steamer *Royal George*. Subsequent investigation proved the case to be merely one of gastro-enteritis, but the officers of the ship in question are in trouble for failing to report it, and the owners are liable to a heavy fine.

Windfalls for Institutions.

Munificent gifts of land and money have been made recently to the Tuberculosis Preventorium at Lakewood, N.J., which will soon be able to take care of over 200 children simultaneously on some 300 acres of ground. The New York Hospital for the Ruptured and Crippled also has benefited by the remarkable rise in real estate prices in New York. It has sold its property, mainly to a railway, for £270,000, probably five times what was paid for it many years ago.

Forged Licences to Practise.

Discovery has been made of a large number of forged certificates to practise medicine and dentistry in New York, and investigation as to the holders of such forgeries will be difficult and probably incomplete.

Dec. 23rd, 1910.

NOTES FROM SOUTH AFRICA.

(FROM OUR OWN CORRESPONDENT.)

Public Health Matters.

AN influential deputation, consisting of the members of the standing committee of the South African Medical Congress, and practically all of the medical Members of Parliament, has recently waited by appointment on the Right Hon. the Prime Minister, General Botha, and the Hon. the Minister for the Interior, General Smuts, and communicated to them the unanimous wish of the medical profession in South Africa, as expressed in the resolutions passed at the last meeting of Congress, to the effect that, *inter alia*, a Portfolio of Public Health should be created, to be held, if need be, in combination with some other portfolio, and that a medical officer of health for South Africa should be appointed and should be the sole administrative head of the new department. The views of the profession were admirably voiced by Dr. Mathew Hewat, health officer for the Mowbray municipality. To Dr. C. F. K. Murray, the President of the Congress, were entrusted the resolutions regarding the proposed General Medical Council for South Africa, and he also ably fulfilled his task. At the conclusion General Smuts stated that the matters brought forward were of serious moment, and that the resolutions would be taken into consideration by the Government. Since the interview, however, nothing has been done by the Government in the direction desired, and it is regarded as fairly certain that the resolutions will be pigeon-holed unless the profession continues the agitation. It is felt that before Ministers can be expected to realise the gravity of continuing present methods of administration of public health affairs, and before Parliament can be expected on non-party lines to bring pressure to bear on the Government, the public at large will have to be educated, and the local organising committee now proposes, before taking further steps, that members of the profession should throughout the country attempt by letters to the lay press to show the really urgent need for a State Department of Health. It is thought that the facts regarding existing methods of administration have only to be clearly put before the public when the need for such a department will be realised and its creation undertaken in deference to public opinion. But the local organising committee is desirous above all that the question should not be regarded as a party one. Meanwhile there are grave matters intimately affecting the health of the people within the Union, which, without a proper department under the control of a chief administrative medical officer, can at present but inadequately be dealt with. To mention but a few of these. There is the guarding of the State against the introduction of infectious diseases from beyond its boundaries at the ports and in the north. We know to our cost the need for an efficient and coördinated port health service in South Africa. We have had experience of plague on several occasions introduced from India and elsewhere. This disease is only too likely to be introduced again at any time by sea, and when introduced it will be, as before, exceedingly difficult to eradicate owing to the extreme rat infestation of our ports and many of our inland towns. Apart from the necessity of taking adequate precautions against the introduction of plague by rodents in vessels arriving from India and other infected countries (even England), there are at present epidemics of cholera in Russia, Asia, and Madeira, and if cholera were introduced at this time into South Africa it might be difficult to combat. Beyond the boundaries of the Union in the north there is sleeping sickness, apparently slowly but surely finding its way south. Within the Union there are problems already urgently demanding attention, such as malaria, leprosy, syphilis, tuberculosis, and small-pox, as well as the question of State supervision of the mines. In portions of the Transvaal malaria prevents whole districts from becoming properly developed. A large number of lepers are segregated within the Union, but there are probably over 2000 still at large. Many of these have been reported to the authorities, but owing to lack of accommodation in the leper settlements have not been removed from their homes. Syphilis is rampant and practically uncontrolled in certain native areas, particularly in portions of the Transvaal, in Bechuanaland, and in parts of Zululand. In Bechuanaland it is stated that actually nearly 4 per cent. of the native population is being treated for this disease, but the administrative arrangements are defective, and a large number of infected persons receive no treatment. In the Transvaal the arrangements are even more unsatisfactory, while in Zululand practically nothing is being done by the Government at all. Tuberculosis is prevalent all over South Africa and is becoming year by year more and more serious, particularly amongst the native races. Its spread has been due to defective housing, particularly in the towns, but much more to the unsatisfactory conditions under which natives work and live at the mines. All these matters and many others demand the attention of an active department. They would, however, appear to be

receiving but scanty attention at present, though eventually the country will have to pay, and pay heavily at that, for neglecting the safeguarding of the health of its citizens. As far as the Transvaal is concerned, there has been no efficient health service since Dr. George A. Turner, the medical officer of health under Crown Colony Government, was retrenched, which took place soon after the advent of responsible government in that colony. In the Orange Free State and Natal small but defective health administrations existed prior to Union and have been practically left untouched since Union. In Cape Colony, a strong State department existed until the accomplishment of Union, when it was broken up. It is not too late for this to be reconstructed, and after amalgamation with the other health administrations it might serve South Africa with the success with which it formerly served the inhabitants of Cape Colony. It is the object of the profession in South Africa to see that public opinion is aroused to insist upon reform before it is too late.

Death of Dr. John Greathead.

On Oct. 26th, in an almost inaccessible portion of British East Africa, a well-known and greatly respected practitioner in South Africa, Dr. John Greathead, met his death from pneumonia and, so it is stated, sleeping sickness while on a shooting expedition. Dr. Greathead had for many years a large practice at Grahamstown in Cape Colony, and was virtually the only surgeon with any considerable consulting practice in the Eastern Province. He was a brilliant surgeon, with a considerable experience and ability in ophthalmic work. He is perhaps best known to South Africans as a member of the Medical Council of Cape Colony. By his death the profession has suffered severe loss.

Medical Education.

During the past two years there has been a movement to cheapen the cost of medical education to South African students who hitherto have had to take out the whole five years' curriculum at a recognised medical school in the British Isles. Last year, however, the passing of the examination in botany, chemistry, physics, and biology was recognised by the authorities of the Edinburgh University as exempting students from the corresponding examination at the latter institution, and the course of study for such examination was in consequence permitted to count as one year in the student's curriculum. Edinburgh has always attracted medical students from South Africa far more than any other educational centre in the old country, and the reason is obvious, for it has always afforded all possible facilities to colonial students. The recognition of the preliminary science examination, as above mentioned, has increased the tendency of students from this country to select the Edinburgh University as their Alma Mater, and it is expected that the other examining bodies and universities, unless debarred by their Charters or Acts of Incorporation, will follow suit, as, indeed, the Royal Colleges in England have already recently done. An arrangement was entered into a few months ago between the South African College (one of the oldest and best endowed colleges affiliated to the Cape University) and certain examining bodies in Great Britain, whereby a proposed course of tuition at the College has been approved of as satisfying the requirements in respect of laboratory instruction for the D.P.H. examinations. The medical officer of health of the City of Cape Town has been appointed honorary lecturer on hygiene to the College, and it is understood that he is expected to give all the laboratory instruction required, at any rate in bacteriology. Proper tuition in chemistry for the purpose of the course is already obtainable at the College and should be given by the professor of chemistry, if this has not already actually been arranged. It is not felt, however, by the profession generally that sufficient instruction in bacteriology can be given except by a specialist in bacteriology, and it is probably this feeling which has hitherto kept intending candidates from taking out the course locally. Under all the circumstances it would not seem amiss if the General Medical Council looked into the matter. Within the last few months another step forward in educational policy has been decided upon by the same College and one which will meet with universal approval—namely, the establishment of chairs of anatomy and physiology. The late Government of Cape Colony was interested in the matter and promised financial support. This promise has been ratified by the Government of the Union, which has placed on the Estimates for consideration by Parliament sums of money in aid of the necessary buildings and provision for the salaries of professors of anatomy and physiology respectively. It is expected that these will be sanctioned by Parliament without difficulty, subject to the condition that if a national teaching university should ever be established the college authorities will not oppose the transfer of such chairs to the university. Plans for the new buildings are now being considered by the college council, and it is expected that building operations will be put in hand at an early date. An Anatomy Act has, I understand, been prepared and will be submitted to Parliament some time this session. It is stated to be framed on the lines largely of other colonial statutes, particularly the State Ordinances of Australia and Canada. It provides, *inter alia*, for the licensing of schools of anatomy and for the appointment of inspectors of anatomy. Also that the body of any person dying in a public hospital, asylum, or penal establishment which is not claimed within 24 hours may be handed over to an inspector of anatomy for the purpose of being prepared for dissection, and if not claimed within a fortnight thereafter may be used at any licensed school for the purposes of dissection. It is not thought that the proposed Act will meet with any opposition, and it will doubtless shortly receive the sanction of Parliament. When these chairs have been established the college will have to obtain recognition of the course of tuition, so as to enable students to proceed home for the purpose of entering for the second professional examination without having to take out courses of instruction in these subjects there, and then it should be possible for a South African student to qualify in medicine after three years' residence at such educational centre out of South Africa as he may select. It will be some years before any further step forward in the direction of providing medical education locally will be possible. If this scheme is energetically carried through it should secure for Cape Town the South African Medical School of the future. Cape Town can no longer be the centre of administration, but it is likely that, besides being the legislative capital of the Union under the constitution, it will become the most important educational centre in South Africa, for which it must be admitted it is admirably fitted on account of its climate and magnificent surroundings, although many would prefer to see such a centre established in the north.

Dec. 4th, 1910.

Obituary.

JAMES EDWARD POLLOCK, M.D. ABERD., F.R.C.P. LOND., L.R.C.S. IREL.,

CONSULTING PHYSICIAN TO THE BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

IN the death of Dr. James Edward Pollock on Dec. 18th medicine has lost another of its distinguished veterans. Born in 1819 he was the son of a barrister, Mr. Edward Pollock, and after pursuing his medical studies in Dublin received his first diploma in 1840 as an L.R.C.S. Irel. In 1842 he began practice in Rome, but a few years later he received the degree of M.D. from King's College, Aberdeen. Coming to London, Dr. Pollock established himself in practice, his first appointment being that of physician to the Western General Dispensary. He was later elected physician to the Brompton Hospital for Diseases of the Chest, with which institution some of his best work is connected, and he held the office of consulting physician thereto at the time of his death.

His work at Brompton was most painstaking and accurate, and he served that institution faithfully, not only in a strictly medical capacity, but also on the committee of management, in which his wide knowledge of affairs proved very valuable in harmonising the sometimes divergent views of the economic and scientific aspects of benevolent institutions. In 1865 he published a work on the "Elements of Prognosis in Consumption," founded on an analysis of about 3500 undoubted cases of the disease. In these days of exact laboratory data upon which to found a correct medical judgment in regard to diagnosis and prognosis, it is remarkable, on looking through Dr. Pollock's book as it was first published, to observe how closely he forestalled, on clinical grounds alone, indications now substantiated and explained

by our modern knowledge of the pathology of pulmonary tuberculosis. As was said by us of the book at the time of its publication, it was "not manufactured from the writings of his predecessors," but was "the result of much honest and painstaking work on his own part." It may even now be consulted with advantage by those well enough versed in modern pathology rightly to interpret its deductions. In 1864 Dr. Pollock was elected to the Fellowship of the Royal College of Physicians of London, of which body he became a Censor in 1884. In 1893 he was Senior Censor, and in the same year, in consequence of the death of Sir Andrew Clark, acted as pro-President for the interregnum until the following presidential election. He was also a member of the Council and examiner in medicine. In 1883 he delivered the Croonian lectures on Modern Theories and Treatment of Phthisis, and in 1889 the Harveian oration.

In 1881 he was president of the Harveian Society and delivered the lectures on the Prognosis of Heart Disease. He was also a former vice-president of the Royal Medical and Chirurgical and Pathological Societies. He took great interest in the subject of life insurance, was medical officer of three societies, and was among the founders of the Life Assurance Medical Officers' Association, of which he was rightly chosen first president. Here, as in other fields, his careful observations, his accurate records, and his clear judgments were of the highest value, and his ripe experience was crystallised in the publication, in 1889, in conjunction with Mr. James Chisholm, an actuary already well known through his writings on the assessment of extra risks, of the "Medical Handbook of Life Assurance," a book the completeness, brevity, and trustworthiness of which were generally recognised. His other writings were chiefly lectures and contributions to the medical press on the subject of consumption. During the later years of his life he had an extensive consulting practice, and in 1895 was appointed physician extraordinary to Her Majesty Queen Victoria.

There were present at his funeral, which took place in Highgate Cemetery on Dec. 22nd, 1910, besides his relatives and friends, the President, the Senior Censor, and the emeritus and present registrars of the Royal College of Physicians of London, and, as representing the Brompton Consumption Hospital, Dr. Theodore Williams, Dr. R. Maguire, Dr. S. H. Habershon, Dr. H. Batty Shaw, Mr. R. J. Godlee, and the secretary, Mr. Francis Wood. Dr. Pollock was a kindly genial gentleman, a courteous and learned physician with a dignified presence, and a worthy representative of the best traditions of medicine. After a full life of active work, crowned with the leisure earned thereby, he died at a ripe age, holding the esteem and affection of his colleagues and of a wide circle of friends.

Dr. Theodore Williams writes:—"The Brompton Hospital and the College of Physicians have lost one of their most striking personalities by the death of Dr. J. E. Pollock at the advanced age of 92. From the year 1867, when I joined the staff of the Brompton Hospital as assistant physician, until shortly before his death, I was on very intimate terms with Dr. Pollock, and as a friend and colleague I profited by his sagacious and wise counsel and by his sterling example. As a clinical and scientific physician he was quite a model. His methods of auscultation and percussion, derived, I believe, from the late Dr. Stokes of Dublin, were most accurate and were carried out with the greatest precision. Then came the diagnosis, and, perhaps the most valuable of all, on which this was based, were the succinct notes to be found on Dr. Pollock's ward cards. The worth of his notes can be realised from the fact that his well known work on the 'Elements of Prognosis in Consumption' dealt with 3500 cases, and all these were noted by his own hand. Dr. Pollock held strongly to the large part played by the constitutional powers, the soil as it is termed, in distinction to the seed or tubercle bacillus, in the evolution of phthisis, and always dwelt on the importance of strengthening these powers in every possible way. He was one of the earliest advocates of the open-air treatment of the disease. He laid great stress also on heredity, and was the first in England to point out the large proportion of acute cases in which heredity was present and also how rare hæmoptysis was in these cases. Dr. Pollock's statistics were some of the early factors of the more favourable view of consumption that is now held, and he applied these statistics to life assurance, obtaining many interesting figures and results. He was one of the best examiners for life insurance I have ever known, and he owed this principally to his large experience, both in life offices and in hospital and private practice. With regard to Dr. Pollock's conduct as a colleague on the administration of the Brompton Hospital, I cannot give too much praise. To his colleagues he was most loyal, always considerate and deferential to seniors and even to those of his own standing, and encouraging and stimulating to juniors, often affording them opportunities for work and distinction by placing his wards at their disposal and infusing us all with a high standard of professional duty and honour. Perhaps where he shone most was in his relations with the Brompton Hospital committee of management, which for many years it was his duty, as chairman of the medical committee, to attend. Dr. Pollock had the happy knack of placing the latest appliances of modern medicine and surgery in so clear a light that the desirability of their adoption became at once obvious, and the committee after a time valued his opinion very highly. Naturally Dr. Pollock, while loyal and kind hearted, showed his Hibernian origin in loving a fight, and a right good fighter he was, as might be occasionally witnessed at the medical societies. He was an eloquent speaker and a clear writer. Dr. Pollock was an affectionate husband and a fond father, while truly his left hand did not know of the many self-sacrificing and generous acts of mercy which his right hand did, and which made his name a blessed one in many a poor family, by whom he was loved and respected as much as by his colleagues and his friends."

WILLIAM BAIRD McQUITTY, M.A., M.D. R.U.I., D.P.H. CAMB.

IT is with sincere regret that we announce the tragically sudden death of one of the most brilliant of the younger physicians of the Belfast medical school, Dr. W. B. McQuitty, which occurred on Friday night, Dec. 30th, 1910, at his residence, University-square, Belfast, from cerebral hæmorrhage, after only half a day's illness, at the early age of 48. Dr. McQuitty was a native of Belfast, son of the late Mr. James McQuitty, a Belfast merchant. He was a foundation scholar at the Royal Academical Institution, Belfast, from which he entered Queen's College in 1881–82. There he had a most brilliant career, being both a junior and a senior scholar, and at the Royal University he took first-class honours at the B.A., M.A., and M.D. degree examinations, and also gained the studentship in experimental science. He subsequently studied at the Rotunda, Dublin, at the London Hospital, and at the Hospital for Sick Children, Great Ormond-street. He was a D.P.H. of Cambridge. Settling down in his native city, he was first attached to the Ulster Hospital for Children, but on Oct. 27th, 1900, his real life work began when he was appointed assistant physician to the Royal Victoria Hospital. There he used all his previous training to enable him to get a thorough practical acquaintance with disease, and not only did he by this experience become himself a physician, but he gathered round him session after session a large class of students, who appreciated to the utmost his thorough mastery of the diagnosis and treatment of the patients, and who subsequently, when they began practice, frequently called him in consultation. As a result, during the past five years Dr. McQuitty gradually became one of the most valued consulting physicians in the North of Ireland, an advancement due alike to his abilities and to his training in general and in hospital practice. He appeared at times to the greatest advantage at the local medical societies when, with the keenest powers of observation, he showed very rare cases, and at the same time indicated by a few words his complete knowledge of medical literature. Dr. McQuitty was a man of the most amiable and kindly disposition; he had brains, grit, levelheadedness, and the greatest power of work. He impressed all who came into contact with him as a physician who thoroughly examined each case in the most careful way, availing himself of every avenue of diagnosis. A man who had no showy or evanescent qualities, he gave one the impression of great reserve power, and those who knew him best clearly saw that every year he improved in both skill and knowledge. His death, at such a comparatively early age, is a great loss to the public of the North of Ireland, to the profession, and to the Belfast Medical School. A true friend, a loyal colleague, and a most conscientious and able physician, his death is lamented by everyone in Belfast. Although Dr. McQuitty was unmarried, one of the saddest features connected with his early decease is the fact that he had quite recently

become engaged. He was buried in the city cemetery, Belfast, on Jan. 2nd, his remains being followed by a concourse of his professional brethren and of the public.

WALTER BROCK DE JERSEY, M.B., B.C. CAMB., M.R.C.S. ENG., L.R.C.P. LOND.

THE death of Dr. Walter Brock de Jersey of Guildford, which occurred at Ascot last month at the early age of 47 years, has been learned with great regret by a large circle of patients and friends.

Dr. de Jersey was the son of Mr. Carey de Jersey of Guernsey. He was educated at Elizabeth College, Guernsey, and Marlborough. He proceeded to Pembroke College, Cambridge, in 1881, graduated B.A. in 1884, and entered at St. Thomas's Hospital in 1886. In 1889 he qualified as M.R.C.S. Eng., L.R.C.P. Lond., and graduated M.B., B.C. Camb. in 1890. He held the posts of house physician and clinical assistant in the Ear Department at St. Thomas's Hospital, and subsequently that of house surgeon and senior resident medical officer at the Evelina Hospital for Sick Children. After a voyage to the West Indies with Lord Brassey on the *Sunbeam*, as medical officer, he married in 1893, and having engaged in private practice in London for a short time finally settled in Guildford in 1895. For several years past he had been honorary medical officer to the Royal Surrey County Hospital, where his loss is much deplored by his colleagues and the staff of that institution.

His health had been failing since the summer, but he continued with his work and only reluctantly gave up some three weeks before his death to go to a nursing home at Ascot. His untimely death came as a painful surprise to his friends and patients, as it was not generally known that he was seriously ill. He was buried at Stoughton Cemetery, Guildford, the first part of the service taking place at Christ Church, which was attended by a large and representative gathering, including all the medical men in practice in the town and many former patients. He leaves a widow, a son, and two daughters to deplore the loss of a much-loved husband and father.

A friend and neighbour writes to us as follows:—"Dr. de Jersey was ever ready to assist his colleagues, and the writer had frequent opportunities of appreciating the kindliness and generosity of his nature. He adopted a high standard of professional etiquette, and his advice on this and other matters was readily given and greatly valued. He was much attached to his work and took a personal interest in all his patients. I am able to quote the following expressions of the esteem and confidence which he inspired in his patients. 'Dr. de Jersey,' writes one patient, 'had characteristics and qualifications which make his loss seem irreparable to those of us who esteemed it a privilege to consult him as the "family doctor." The entire absence of the spirit of the "high priest," a wonderful sympathy, and the perfect courtesy of the best type of an English gentleman united in confirming the confidence which his professional skill inspired.' Another writes: 'Rich in saving common sense, and possessed of a ripe and well-balanced judgment, his advice on matters non-medical was frequently sought with the happiest results.'"

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Wilhelm Jaeger of Darmstadt, for many years surgeon to the Municipal Hospital and previously assistant to Professor Gustav Simon at Heidelberg. His age was 72 years.—Dr. Ludwig Toinwaldt, a well-known laryngologist of Dantzig, aged 67 years.—Dr. Samuel Alexander, professor of genito-urinary diseases in Cornell University Medical College, New York.—Dr. Ch. A. Herter, professor of materia medica and therapeutics in the New York College of Physicians and Surgeons.—Dr. F. Fée, inspecting medical officer of the French Army Medical Service.—Dr. G. Profeta, professor of dermatology in the Genoa Medical School.—Dr. Johann Fritsch, extraordinary professor of mental diseases in Vienna.—Dr. Wilhelm Fischel, *privat-docent* of midwifery and gynæcology in the German University of Prague.

A SOMERSET CENTENARIAN.—Mrs. Elizabeth Andrews died at Street, Somerset, last week in her 102nd year.

Medical News.

UNIVERSITY OF LONDON.—At examinations held in December the following candidates were successful:—

M.D. EXAMINATION.

Branch I., Medicine.—Charles J. Armstrong-Dash, B.S., St. Bartholomew's Hospital; Henry Swarbrick Brown, Guy's Hospital; John Hay Burgess, St. Mary's Hospital; Cecil Clarke, B.S., University of Bristol and University College Hospital; Herbert Rees Davies, B.S., London Hospital; Edward Vincent Dunkley, B.S., St. Thomas's Hospital; Dan Arthur Powell, B.S., Charing Cross Hospital; William Hebert Smailes, B.S., University of Leeds; William Rees Thomas, B.S., University College, Cardiff, and Charing Cross Hospital; and Rawdon Augustus Veale, B.S., University of Leeds.

Branch II., Pathology.—Edgar Hartley Kettle, B.S., St. Mary's Hospital.

Branch III., Mental Diseases and Psychology.—John George Porter Phillips, B.S., University College and Guy's Hospitals.

Branch IV., Midwifery and Diseases of Women.—Mary Alice Blair, B.S., London (Royal Free Hospital) School of Medicine for Women; Herbert Orpe Brookhouse, B.S., Guy's Hospital; Ethel Constance Cousins, B.S., London (Royal Free Hospital) School of Medicine for Women; Herbert Bowly Gibbins, St. Bartholomew's Hospital; William Gilliatt, B.S. (University Medal), Middlesex Hospital; Anna Maude Seaton Smith, London (Royal Free Hospital) School of Medicine for Women; Thomas G. Starkey Smith, B.S., St. Thomas's Hospital; and Bessie Weldon Symington, B.S., Ruth Helen Western, B.S., and Sophia Margaret V. Witts, B.S., London (Royal Free Hospital) School of Medicine for Women.

Branch V., State Medicine.—Lilian Ethel Wilson, B.S., London (Royal Free Hospital) School of Medicine for Women.

Branch VI., Tropical Medicine.—Leonard Gilbert, B.S., St. Thomas's Hospital; Henry Crewe Keates, B.S., Guy's Hospital; John Preston Maxwell, B.S., St. Bartholomew's Hospital and London School of Tropical Medicine.

M.S. EXAMINATION.

Pass-list.—Frederick James Fitzmaurice Barrington, University College Hospital; Harry Blakeway, B.Sc., St. Bartholomew's Hospital; Edward Musgrave Woodman (University Medal), St. Bartholomew's Hospital.

FIRST EXAMINATION FOR MEDICAL DEGREES.

Pass-list.—Reginald George Abrahams, University of Birmingham; Frank Macdonald Allchin, King's and Birkbeck Colleges; Kevin Doyle Atteridge, St. Bartholomew's Hospital; Christopher Percival Barber, Charing Cross Hospital; Kanshi Ram Betra, University College; Claude Wells W. Baxter, Plymouth Technical Schools; Eric Biddle, University College, Cardiff, and Guy's Hospital; Frank Chadwick, Victoria University of Manchester; Dorothy Chick, London (Royal Free Hospital) School of Medicine for Women; Llywelyn ap Ivan Davies, University College; Eric Gordon Dingley, St. Bartholomew's Hospital; John Ralph Dingley, University College; Geoffrey Barrow Dowling, Dulwich College and Guy's Hospital; *Langdon Percival L. Edwards, Whitgift Grammar School; Robert Hood Fleming, B.Sc., Middlesex Hospital; Ronald Kelson Ford, London Hospital; Annie Mary Forster, London (Royal Free Hospital) School of Medicine for Women; Gerald Francis Petvin Gibbons, Epsom College and St. Bartholomew's Hospital; Olaf Gleeson, private study; George Edwin Heath, Derby Technical College; †Geoffrey Oliver Hempson, University College; Dorothy Muriel Henty, London (Royal Free Hospital) School of Medicine for Women; Ernest Eugène Herga, London Hospital; Hugh Llewelyn Glyn Hughes, Epsom College and University College; John Powell Jones Jenkins and Rhys Bevan John, University College, Cardiff; Louis Gaston Le Blanc, St. Bartholomew's Hospital; Adeline Mabel Matland, London (Royal Free Hospital) School of Medicine for Women; Allan Hawkins Morley, London Hospital; Hugh Roger Partridge, University of Leeds; Leonard George Phillips, Middlesex Hospital; Emma Christine Pillman, London (Royal Free Hospital) School of Medicine for Women; William Kenneth A. Richards, University of Bristol; Ralph Leslie Robinson, University College; Trevor Cecil Russell, St. Mary's Hospital; Lionel Frederick Strugnell, St. Bartholomew's Hospital; Rufus Clifford Thomas and William Henry Thomas, University College, Cardiff; *William Leslie Thomas, Swansea Technical College; and Henry Wardel Snarey Wright, University College.

* Awarded a mark of distinction in Physics.

† Awarded a mark of distinction in General Biology.

N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.

LONDON SCHOOL OF TROPICAL MEDICINE.—The result of the examination at the thirty-fourth session of this school (October–December, 1910), showed that the following passed:—

K. B. Allan, M.B., B.S. Durh., Colonial Service; *W. M. Anderson, Captain, I.M.S., M.D., B.S. Lond.; H. G. Barrie, M.D., C.M.; *F.V.O. Beit, Captain, I.M.S., M.B. Lond.; L. H. Booth, M.R.C.S., L.R.C.P., Colonial Service; *R. St. John Brookes, M.B., B.Ch. Dub., D.P.H. Dub.; Miss N. G. Cotton, M.B., B.S. Lond.; *J. Donnelly, M.B. Irel., Colonial Service; *L. E. Gilbert, Captain, I.M.S., M.B., B.S. Lond.; Miss I. Kahn, M.D. Michigan; *H. C. Keates, Captain, I.M.S., M.B., B.S. Lond.; *C. A. Lane, Major, I.M.S., M.D. Lond.; *J. H. Murray, Captain, I.M.S., M.B., M.R.C.S., L.R.C.P., D.P.H.; G. Rollason, L.M.S.S.A., Colonial Service; R. S. Roper, F.R.C.S. Edin., M.R.C.S., L.R.C.P.; W. A. Ryan, L.R.C.P., L.R.C.S. Irel., Colonial Service; A. J. Smith, M.B. Birm., Colonial Service; C. S. Thompson, M.B., B.S. Durh., Colonial Service; J. F. W. Ward, L.R.C.P. & S. Edin., Colonial Service; *W. G. Watt, M.B., Ch.B. Aberd., Colonial Service; *H. G. Stiles Webb, Captain, I.M.S., L.R.C.P., M.R.C.S., D.P.H.; and F. T. Wills, M.B., C.M. Edin.

* Passed with distinction.

UNIVERSITY OF CAMBRIDGE.—At examinations for Medical and Surgical degrees, held in Michaelmas term, 1910, the following candidates were successful:—

FIRST EXAMINATION (*October, 1910*).

Part I., Chemistry.—K. H. Ashby, Emmanuel; A. O. Courtis, Pembroke; E. Forrester-Paton, King's; H. K. Graham-Hodgson, Clare; W. Hillbrook, Emmanuel; P. D. Pank, Caius; S. R. Prall, Emmanuel; H. E. Rhodes, King's; T. Schäfer and J. G. T. Thomas, Caius; F. H. Vey, B.A., Clare; and F. H. Young, Trinity.

Part II., Physics.—K. H. Ashby, Emmanuel; F. M. Davis, Caius; E. Forrester-Paton, King's; H. K. Graham-Hodgson, Clare; E. H. V. Hensley, King's; W. Lambert, Corpus Christi; H. W. Leatham, Trinity; F. G. Lewtas, Caius; C. R. Mackenzie, Trinity; T. D. Morgan, Jesus; P. D. Pank, Caius; S. R. Prall, Emmanuel; H. E. Rhodes, King's; T. Schäfer, Caius; F. H. Vey, B.A., Clare; and F. H. Young, Trinity.

Part III., Elementary Biology.—J. G. Davies, Emmanuel; F. M. Davis, Caius; E. Forrester-Paton, King's; W. Hillbrook, Emmanuel; C. E. Kindersley, Magdalene; H. W. Leatham, Trinity; T. D. Morgan, Jesus; S. R. Prall, Emmanuel; and T. Schäfer, Caius.

FIRST EXAMINATION (*December, 1910*).

Part I., Chemistry.—G. F. V. Anson, Trinity; J. V. Bates, Pembroke; J. T. Bleasdell, H. Selwyn; E. L. Caldwell-Smith and H. Chadwick, Trinity; J. G. Davies, Emmanuel; J. R. Earp, St. John's; J. D. Gabb, Caius; S. G. Galstaun, Trinity; C. Gardiner-Hill and E. O. Goldsmith, Pembroke; J. R. Harris, Queens'; E. H. V. Hensley, King's; L. W. Jones, Emmanuel; H. W. Leatham, Trinity; T. R. M. Livesey, King's; F. McCormick, Magdalene; G. L. Mau'e, Christ's; E. O. Morrison, Caius; P. R. O'R. Phillips, Pembroke; R. L. M. Wallis, B.A., Downing; and Franklin G. Wood, Jesus.

Part II., Physics.—G. F. V. Anson, Trinity; J. V. Bates, Pembroke; R. C. Bentley, Queens'; J. T. Bleasdell, H. Selwyn; E. L. Caldwell-Smith and H. Chadwick, Trinity; H. Chell, St. John's; E. H. Dendy, Caius; J. R. Earp, St. John's; J. S. Ellis, Trinity; H. J. Ewart, King's; S. G. Galstaun, Trinity; C. Gardiner-Hill, Pembroke; J. R. Harris, Queens'; W. Hillbrook and L. W. Jones, Emmanuel; M. E. MacGregor, Trinity; E. O. Morrison, Caius; P. R. O'R. Phillips, Pembroke; R. M. Savur, non-col egiate; J. A. D. Skinner and J. G. T. Thomas, Caius; R. L. M. Wallis, B.A, Downing; A. G. P. Wills, Corpus Christi; and Franklin G. Wood, Jesus.

Part III., Elementary Biology.—J. V. Bates, Pembroke; J. J. O. Beven, Christ's; E. L. Caldwell-Smith, Trinity; H. K. Graham-Hodgson, Clare; F. G. Lewtas, Caius; T. R. M. Livesey, King's; C. R. Mackenzie, Trinity; H. E. Rhodes, King's; R. M. Savur, non-collegiate; F. H. Vey, B.A., Clare; R. L. M. Wallis, Downing; and U. G. Williams, Caius.

SECOND EXAMINATION (*October, 1910*).

Part II., Pharmacology and Pathology.—K. B. Aikman, B.A., Clare; D. C. G Ballingall, B.A., Emmanuel; R. St. L. Brockman, B.A., Caius; E. N. Butler, B.A., Clare; G. d'R. Carr and G. M. Chapman, Caius, J. Deighton, B.A.,Trinity; G. D. East, B.A., Emmanuel; A. T. Edwards, St. John's; H. H. M. Gould, Clare; J. L. Green, B.A., Downing; A. N. Hooper, B.A., Emmanuel; G. D. Jameson, B.A., Pembroke; A. R. Jennings, B.A., Jesus; A. R. MacMullen, B.A., Caius; H. Y. Mansfield, B.A., Emmanuel; F. D. Marsh, B.A., Trinity; E. G. Martin, Trinity Hall; J. A. Martin, B.A., and V. C. Pennell, Pembroke; S. G. Platts, B.A., Caius; Ff. Roberts, B.A., Clare; D. N. Seth-Smith, B.A., Emmanuel; T. H. G. Shore, B.A., and A. V. Stocks, B.A., St. John's; P. Stocks, King's; W. J. F. Symons, B.A., Sidney Sussex; H. F. W. Warden, B.A., Pembroke; and E. Wordley, B.A., Emmanuel.

SECOND EXAMINATION (*December, 1910*).

Human Anatomy and Physiology.—E. D. Adrian, Trinity; C. S. Atkin, B.A., and L. W. Barlow, B.A., Caius; H. A. Bell, B.A., Jesus; P. H. Berry, B.A., King's; M. W. K. Bird, Emmanuel; P. R. Boswell, Queen's; E. J. Boyd, B.A., Sidney Sussex; E. C. Bradford, Pembroke; E. J. Bradley, Jesus; E. H. F. Brunton, B.A., Trinity; F. L. Cassidi, B.A., Corpus Christi; W. H. W. Cheyne, B.A., and B. K. T. Collins, B.A., Trinity; G. D. Compston, Trinity Hall; L. P. Costobadie, Caius; G. M. Cowper, Trinity; H. E. Creswell, B.A., Caius; H. L. Cronk, Jesus; J. Ll. Davies, Emmanuel; H. P. Dawson, B.A., and H. V. Deakin, B.A., Trinity; J. M. Evatt, Caius; G. C. Fairchild, B.A., Sidney Sussex; W. D. Galloway, B.A., Clare; C. L. Gimblett, Caius; W. B. Gordon, Clare; A. Griffith-Williams, Trinity; H. Hartridge, B.A., King's; A. D. Haydon, B.A., Caius; R. J. Hearn, Jesus; T. J. H. Hoskin and A. M. Humphry, Trinity; B. L. Hutchence, Caius; J. S. Kennedy, B.A., King's; S. D. Kilner, Emmanuel; G. C. King, B.A., Caius; C. L. Lambrinudi, B.A., Christ's; A. A. Lees, Emmanuel; W. M. Lupton, B.A., Clare; T. W. Maunsell, Caius; E. S. Mawe, King's; C. F. Mayne, B.A., Caius; R. K. Merson, Emmanuel; A. E. Panter, B.A., Clare; F. S. L. Piggott, Emmanuel; H. A. Richards, B.A., Clare; E. L. K. Sargent, B.A., St. John's; C. J. Scholtz, B.A., Emmanuel; J. E. Sharp, B.A., and L. W. Shelley, Caius; W. H. Shephard, Christ's; R. P. A. Starkie, Trinity; M. T. W. Steedman, B.A., Clare; C. R. A. Thacker, Downing; A. G. G. Thompson, Pembroke; E. W. Todd, Trinity; A. W. Uloth, Pembroke; D. C. L. Vey, Clare; P. Wallice, King's; C. A. Weller, B.A., Clare; F. A. Williamson, Queen's; and K. J. Yeo, B.A., Emmanuel.

THIRD EXAMINATION (*December, 1910*).

Part I., Pharmacology and General Pathology.—A. H. Birks, Caius; T. R. H. Blake, B.A., Pembroke; L. Bromley, B.A., and H. H. Brown, B.A., Caius; J. D. Clarke, B.A., Sidney Sussex; S. S. Crosse, B.A., Pembroke; J. P. H. Davies, B.A., Jesus; A. J. S. Fuller, B.A., Emmanuel; H. D. Gillies, B.A., Caius; P. Hamill, M.A., Trinity; E. C. Hardwicke, B.A., Corpus Christi; T. L. Hardy, B.A., H. Selwyn; J. P. Hill, M.A., Caius; W. H. Hodgson, B.A., and R. S. Kennedy, B.A., Christ's; G. A. Lilly, Caius; W. M. Oakden, B.A., Peterhouse; W. A. Pocock, B.A., Pembroke; E. G. T. Poynder, Clare; K. Pretty, B.A., King's; E. C. Rayner, B.A., Caius; J. F. Taylor, B.A., H. Selwyn; J. R. A. Todhunter, B.A., J. W. Tonks, B.A., R. J. Vernon, B.A., and C. B. Wainwright, B.A., Caius; H. K. Waller, Trinity; L. C. Walker, B.A., Christ's; and C. Warner, B.A., Pembroke.

Part II., Surgery, Midwifery, and Medicine.—The following have now satisfied the examiners in all three sections: H. W. Barber, B.A., Clare; H. G. Baynes, B.A., Trinity; C. C. H. Binns, B.A., Caius; A. S. Cane, B.A., King's; J. R. Dick, B.A., Downing; A. Felling, B.A., Pembroke; R. Fisher, B.A., Sidney Sussex; A. J. S. Fuller, B.A., Emmanuel; H. D. Gillies, B.A., Caius; H. G. Greaves, B.A., Emmanuel; P. Hamill, M.A., Trinity; T. W. S. Hills, B.A., Downing; T. H. Just, B.A., Trinity; N. Mutch, B.A., Emmanuel; R. L. Rawlinson, B.A., Trinity; A. E. Rayner, B.A., Caius; H. B. Richmond, B.A., King's; J. B. Ronaldson, B.A., St. John's; F. D. Saner, B.A., Christ's; K. I. Singh, B.A., Pembroke; R. M. Soames, B.A., and C. J. Stocker, B.A., Trinity; R. M. R. Thursfield, B.A., H. Selwyn; W. W. C. Topley, B.A., St. John's; J. Van Schalkwijk, B.A., Caius; J. M. Weddell, B.A., Christ's; P. F. Wilson, B.A., Caius; and W. B. Wood, M.A., Jesus.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. B. Heymann of Breslau has been recognised as *privat-docent* of Hygiene.—*Breslau:* Dr. R. F. Fuchs of Erlangen has been recognised as *privat-docent* of Physiology.—*Göttingen:* Dr. Albert Fromme has been recognised as *privat-docent* of Surgery.—*Gratz:* Dr. Alois Materna has been recognised as *privat-docent* of Pathological Anatomy.—*Heidelberg:* Dr. Ernst Kürz has been recognised as *privat-docent* of Forensic Medicine.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—At the prize distribution by the Right Hon. Lord Ilkeston on Dec. 15th last the subject of the relations between hospitals and their attached medical schools was the theme of several of the speeches. Sir John Wolfe-Barry did not think that the benefits of such an alliance were so much appreciated as they should be by the world at large, yet these advantages were both great and mutual. The recommendation of Sir Edward Fry's committee, that no money should be diverted from the individual relief of the sick poor for educational purposes, had prevented the governors of the hospital from coming to any great extent to the assistance of the school, but he looked to the help promised by the Board of Education. The Dean, Mr. E. Rock Carling, also referred to this subject in his report, saying that the conditions which had embarrassed the metropolitan medical schools of late years were still in operation, but they confidently expected some measure of relief from the labours of the Royal Commission on University Education in London, which was now sitting, and the recognition of the school by the Board of Education had also improved its position and status. Lord Ilkeston, also, in addressing the students at the close of the distribution of prizes, said that it was no inconsiderable advantage for the student to have his medical school attached to a hospital such as the Westminster, and the men he was addressing had the further advantage of being students in the school of medicine of London, which, in spite of its bad organisation, was perhaps the greatest school in the world owing to the large collection of clinical material that it offered for the study of medicine and surgery. In this school it was likely that changes would shortly take place, but he trusted that they would not take away from the hospital any of the instruction it at present gave so excellently in the art and science of medicine. The presence of students, he pointed out, raised the efficiency of a hospital and put their teachers through a valuable discipline. While he admitted that some hospitals in which there was no teaching had done excellent work, he was inclined to think that even these schools would have done still better had the work been carried out before the watchful eyes of a clinical class. If the connexion between medical schools and hospitals were removed the public would be injured most of all. A hospital did the public good in two ways: first, by relieving the applicant at its doors; and secondly, by benefiting the mass of the public who did not come into direct touch with the institution. In London with its dozen medical schools, the raising of the whole tone of medical practice, as the effect of the combination of hospital work with medical education, was prone to be overlooked; but in a provincial town the increased efficiency of the profession locally was very evident if a school were attached to the hospital. He hoped that as wise counsels prevailed in committees and conferences of governments, governments would see their way to bestow increasingly public grants on such institutions as the Westminster School of Medicine. Sir Robert Hudson, in proposing a vote of thanks to Lord Ilkeston, said that though he himself was merely a lay member of the hospital committee, he felt that under the conditions at present attaching to the application and disposal of hospital

funds, it behoved everyone concerned with hospitals to look squarely in the face this question of the financial future of the medical schools, which were engaged in supplying to the community a form of higher education, the gain of which was common to the hospital, the students, and the public at large. Sir William Allchin said that among the many reasons which tended to make the London School of Medicine great there was the important, though, perhaps, not very obvious, one that there was in London not only a wealth of clinical material such as that offered by no other city in the world, but also an active sympathy between those who managed the hospitals, on the one hand, and the students and those who taught on the other. Dr. F. de Havilland Hall, in seconding a vote of thanks to the chairman, said that his 35 years' intimate association with hospitals had taught him the inestimable value of having students in the wards. Indeed, he wondered how he would have got through his work without the stimulus of the student.

KING EDWARD'S HOSPITAL FUND.—The honorary secretaries of King Edward's Hospital Fund for London have received from the League of Mercy its contribution for the year 1910 of £18,000.

THE Nottingham Mothers' and Babies' Welcome will be the beneficiary of a grand matinée performance to be given at the Theatre Royal, Nottingham, through the generosity of Mr. Robert Arthur, on Thursday, Jan. 26th, at 2 P.M., when Mr. R. C. Carton's drama, *Liberty Hall*, will be produced.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET, LONDON.—Lectures free to all medical practitioners are held on Thursday afternoons at 4 o'clock. On Jan. 12th Mr. E. M. Corner will lecture on the Functions and Diseases of the Vermiform Appendix, and on Jan. 19th Dr. J. H. Thursfield will lecture on Purpura. In addition to these lectures each Thursday special post-graduate courses are held, for which fees are charged.

THE fifth annual dinner of the past and present students of the Royal London Ophthalmic Hospital will take place at the Imperial Restaurant, Regent-street, W., on Wednesday, Feb. 8th, at 7.45 P.M. Mr. Priestley Smith will preside. Each student is entitled to introduce two guests. Tickets (price 10*s.* 6*d.* each, exclusive of wine) may be had on application to either of the honorary secretaries, Mr. Arnold Lawson, 12, Harley-street, London, W., and Mr. J. Herbert Parsons, 54, Queen Anne-street, London, W.

THIRTY-SECOND BALNEOLOGICAL CONGRESS, BERLIN.—We announced this Congress in THE LANCET of Dec. 3rd, 1910, p. 1638. It will take place in Berlin from March 2nd to 6th, 1911. The President will be Geh. Med.-Rat Prof. Brieger. Forty-five papers have been accepted for submission to the Congress. Interesting references to radium are expected to be made, and Professor Marckwald of Berlin will deal with Radium from the Physico-Chemical Standpoint, and Professor Kionka of Jena will deal with Radium from the Biological Standpoint.

SOCIETY FOR THE STUDY OF INEBRIETY.—This society will hold its next meeting on Tuesday, Jan. 10th, at 4 P.M., in the rooms of the Medical Society of London, 11, Chandos-street, Cavendish-square, W. The President of the society, Dr. Theodore B. Hyslop, will open a discussion on "The Influence of Parental Alcoholism on the Physique and Ability of Offspring." Each member and associate of the society is at liberty to introduce a visitor. The minimum annual subscription to the society is a nominal one of 5*s.* The honorary treasurer is Dr. G. Basil Price, 42, Welbeck-street, Cavendish-square, London, W., and the honorary secretary is Dr. T. N. Kelynack, 139, Harley-street, London, W.

BOOKS, ETC., RECEIVED.

BALE (JOHN), SONS, AND DANIELSSON, LIMITED, London.
The Diseases of China, including Formosa and Korea. By W. Hamilton Jefferys, A.M., M.D., Univ. of Pennsylvania, Medical Missionary in China; Professor of Surgery, St. John's University; Surgeon to St. Luke's Hospital, Shanghai; Editor, *China Medical Journal*, and James L. Maxwell, M.D. Lond., Medical Missionary in Formosa; Chairman, China Medical Missionary Association Research Committee. Price 25*s.* net.
Lectures on Biology. By Dr. Curt Thesing. Translated from the Second Edition by W. R. Boelter. With the original Coloured and other Illustrations. Price 10*s.* 6*d.* net.

CHATTO AND WINDUS, London.
Herbert Fry's Royal Guide to the London Charities. Edited by John Lane. New and revised Edition—the forty-seventh. Price 1*s.* 6*d.*

CONSTABLE AND CO., LIMITED, London.
From Hausaland to Egypt, Through the Sudan. By H. Karl W. Kumm, Ph.D., Author of "Tribes of the Nile Valley"; "The Political Economy of Nubia," "The Sudan." Price 16*s.* net.

DULAU AND CO., LIMITED, 37, Soho-square, London, W.
University of London. Francis Galton Laboratory for National Eugenics. Eugenics Laboratory Memoirs. X. A First Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring. By Ethel M. Elderton, Galton Research Scholar in National Eugenics in the University of London, with the Assistance of Karl Pearson, F.R.S. Second edition. Price 4*s.*
Eugenics Laboratory Memoirs. XIII. A Second Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring. Being a Reply to Certain Medical Critics of the First Memoir and an Examination of the Rebutting Evidence cited by Them. By Karl Pearson, F.R.S., and Ethel E. Elderton, Galton Research Scholar. Price 4*s.*
Eugenics Laboratory Memoirs. XIV. A Preliminary Study of Extreme Alcoholism in Adults. By Amy Barrington and Karl Pearson, F.R.S., with the Assistance of David Heron, D.Sc. Price 4*s.*

LIPPINCOTT (J. B.) COMPANY, Philadelphia and London.
The Racial Anatomy of the Philippine Islanders, introducing New Methods of Anthropology. By Robert Bennett Bean, B.S., M.D., Associate Professor of Anatomy, the Tulane University of Louisiana, New Orleans, La. Price not stated.

MACMILLAN COMPANY, THE, New York.
The Citizen's Library. Child Problems. By George B. Mangold, Ph.D., Associate Director, Saint Louis School of Social Economy. Price 5*s.* net.

MARSHALL BROTHERS, LIMITED, London and Edinburgh. (THE MISSION TO LEPERS, Edinburgh (28, North-bridge); Dublin (Rogaland, Cowper-road); and London (33, Henrietta-street, Strand, W.C.)
Lepers: Thirty-six Years' Work among Them. Being the History of the Mission to Lepers in India and the East, 1874-1910. By John Jackson, F.R.G.S., author of "Mary Reed," "In Leper Land," &c. With a Short Introduction by the Dowager Marchioness Dufferin and Ava. New and revised edition. Price not stated.

PHARMACEUTICAL PRESS, THE, 72, Great Russell-street, London, W.C.
The Chemist's Annual and P.J.F. The Pharmacist's Diary and Year-book, 1911. Edited by John Humphrey. Price 5*s.* net.

SAUNDERS (W. B.) COMPANY, Philadelphia and London.
The Practice of Surgery. By James Gregory Mumford, M.D. Price 30*s.* net.

STANFORD, EDWARD, London.
Nigeria and its Tin Fields. By Albert F. Calvert. Price 3*s.* 6*d.*

THACKER, SPINK, AND CO., Calcutta.
The Treatment of Cataract. By Lt.-Colonel Henry Smith, B.A., M.D., M.Ch., Indian Medical Service. With Appendix by Captain A. E. J. Lister, M.B., B.S., F.R.C.S., Indian Medical Service. Illustrations by Dr. Derrick T. Vail, Professor of Ophthalmology, University of Cincinnati, &c. Price not stated.

UNIVERSITY PRESS, Cambridge.
The Cure of Surra in Horses by the Administration of Arsenic. By J. D. E. Holmes, M.A., D.Sc., Imperial Bacteriologist to the Government of India. (From "Parasitology," Vol. III., No. 3, October 22, 1910). Price not stated.

WARD AND CO., 34, Craven-street, Charing Cross, London, W.C.
Photography in Colours. A Text-book for Amateurs. With a Chapter on Kinematography in the Colours of Nature. By George Lindsay Johnson, M.A., M.D., B.S., F.R.C.S. Price 3*s.* 6*d.* net.

WHITAKER, J., AND SONS, LIMITED, London.
An Almanack. For the Year of Our Lord, 1911. By Joseph Whitaker, F.S.A. (Whitaker's Almanack.) Price 2*s.* 6*d.*
Whitaker's Peerage, Baronetage, Knightage, and Companionage for the Year 1911. Price not stated.

WILEY, JOHN, AND SONS, New York. (CHAPMAN AND HALL, LIMITED, London.)
A Text-book of Organic Chemistry. By A. F. Holleman, Ph.D., F.R.A.Amst. Edited by A. Jamieson Walker, Ph.D. (Heidelberg), B.A., assisted by Owen E. Mott, Ph. (Heidelberg), with the Coöperation of the Author. Third English Edition, partly re-written. First Thousand. Price, cloth, $2.50.

WRIGHT, JOHN, AND SONS, LIMITED, Bristol. SIMPKIN, MARSHALL, HAMILTON, KENT, AND CO., LIMITED, London.
An Introduction to Surgery. By Rutherford Morison, M.A., M.B., F.R.C.S. Edin. and Eng. Price 8*s.* 6*d.* net; interleaved, 9*s.* 6*d.* net.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

ATKINSON, R. A. H., M.B., Ch.B. Vict., has been appointed Anæsthetist to the Manchester Royal Infirmary.

BARCLAY, A. E., M.B., B.C. Cantab., has been appointed Medical Officer for the Radiography and Electricity Department at the Manchester Royal Infirmary.

BEESLEY, CLARENCE, L.R.C.P. & S. Edin., L.F.P.S. Glasg., D.P.H. Camb., has been reappointed Medical Officer of Health by the Budleigh Salterton (Devon) Urban District Council.

BURTON, ALFRED WILLIAM, M.B., Ch.B. Edin., has been appointed House Surgeon at the Bristol General Hospital.

CLARKE, RICHARD CHRISTOPHER, L.R.C.P. Lond., M.R.C.S., has been appointed Casualty Officer at the Bristol Royal Infirmary.

COOGAN, T., M.B., Ch.B. Vict., has been appointed Anæsthetist to the Manchester Royal Infirmary.

DAVIES, TREVOR BERWYN, M.B., B.S., B.Sc. Lond., has been appointed House Surgeon at University College Hospital.

FLOOD, RICHARD, M.B., B.S. R.U.I., has been appointed one of the Medical Referees under the Workmen's Compensation Act, 1906, for the County of Down.

HOWARTH, WALTER G., M.B., B.C. Cantab., F.R.C.S. Eng., has been appointed Surgical Registrar at the Throat Hospital, Golden-square, W.

JACKSON, S. B., M.D., B.S. Durh., D.P.H., has been appointed School Medical Officer to the Gillingham Education Committee.

KING, D. BARTY, M.D. Edin., M.R.C.P. Edin., has been appointed Assistant Physician to the Royal Hospital for Diseases of the Chest, E.C.

LOVEDAY, G. E., M.B., B.C. Cantab., has been appointed Director of the Clinical Laboratory at the Manchester Royal Infirmary.

LYLE, H. WILLOUGHBY, M.D., B.S. Lond., F.R.C.S. Eng., has been appointed Ophthalmic Surgeon at King's College Hospital.

MACKENZIE, JAMES, M.D. Edin., has been appointed Lecturer on Cardiac Research at the London Hospital Medical College.

MITCHELL, J., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Brigg District of the county of Lincoln.

MOORE, H. E., M.B., B.S. Manch., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Stourport District of the county of Worcester.

MYERS-WARD, C. F., M.R.C.S., L.R.C.P. Lond., has been appointed Dean of Charing Cross Hospital Medical School.

PIPER, F. P., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Whitstable District of the county of Kent.

REARDEN, JAMES P., L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer, Divisional Officer, Public Vaccinator, and Medical Officer for the Bute Hospital.

SANKEY, WILLIAM OCTAVIUS, M.D., B.S. Lond., L.R.C.P. Lond., M.R.C.S., has been appointed Public Vaccinator for the Ashburton District by the Newton Abbot (Devon) Board of Guardians.

SELLARS, JOHN CHRISTOPHER, L.R.C.S. Irel., L.K.Q.C.P. Irel., has been appointed Medical Referee under the Workmen's Compensation Act, 1906, for the County of Louth.

TUDEHOPE, CLAUDE BARTLEY, M.B., Ch.B. Edin., has been appointed Assistant House Physician at the Bristol General Hospital.

VEALE, PHILIP JOHN, M.B., B.S. Lond., has been appointed Casualty House Surgeon at the Bristol General Hospital.

WILLIAMS, E. V., M.B., Ch.B. Edin., has been appointed House Surgeon to the Swansea Hospital.

WILSON, S. R., M.B., B.S. Lond., F.R.C.S. Edin., has been appointed Anæsthetist to the Manchester Royal Infirmary.

WORTH, F. J., M.D., B.S. Durh., has been appointed Workhouse Medical Officer and Medical Officer for No. 4 District by the Basingstoke Board of Guardians.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ADDENBROOKE'S HOSPITAL, Cambridge.—House Surgeon. Also Second House Surgeon. Salary in each case £80 per annum, with board, residence, and laundry.

BEDFORD COUNTY HOSPITAL.—House Physician. Salary £80 per annum, with apartments, board, and laundry.

BRISTOL ROYAL INFIRMARY.—Two House Physicians and One House Surgeon. Salary £100 each per annum. Also One Obstetric and Ophthalmic House Surgeon, and One Throat, Nose, and Ear House Surgeon. Salary £75 each per annum. Also Casualty Officer for six months. Salary £50 per annum. Apartments, board, and laundry are provided. Also Honorary Dental Anæsthetist. Also Honorary Medical Registrar.

CARDIGANSHIRE COUNTY COUNCIL.—Medical Officer. Salary £450 per annum.

CENTRAL FOUNDATION SCHOOLS OF LONDON, Spital-square, E.—Medical Officer (female) for Girls' School. Salary £50 per annum.

CITY OF LEEDS INFECTIOUS DISEASES HOSPITALS AND SANATORIUM.—Two Medical Assistants, unmarried, for six months and three months respectively. Salary at rate of £110 a year, with board, lodging, and washing.

CITY OF LONDON LYING-IN HOSPITAL, City-road, E.C.—Resident Medical Officer for four months. Salary at rate of £50 per annum, with board, lodging, and washing.

CLINICAL RESEARCH ASSOCIATION.—Assistant Director. Salary £250 per annum.

EARLSWOOD ASYLUM, Redhill.—Junior Assistant Medical Officer, unmarried. Salary £130, with board, lodging, and washing.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—House Physician. Salary at rate of £75 per annum, with board, residence, laundry, &c.

EAST SUSSEX COUNTY COUNCIL.—Assistant School Medical Officer. Salary £250 per annum.

GLASGOW PARISH COUNCIL, EASTERN DISTRICT HOSPITAL.—Resident Assistant Medical Officer. Salary £100 per annum, with board and lodging.

GLOUCESTER, BARNWOOD HOUSE HOSPITAL FOR MENTAL DISEASES.—Second Assistant Medical Officer. Salary £160 per annum, with board, &c.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House Surgeon for six months. Salary at rate of £80 per annum, with board, residence, and washing.

HARRIS PARISH COUNCIL.—Medical Officer and Public Vaccinator. Salary £110 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physician for six months. Salary 30 guineas.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Physician, unmarried, for six months. Salary £30, with board and residence. Also Fourth Anæsthetist. Salary £15 15s. per annum.

HULL ROYAL INFIRMARY.—Assistant House Surgeon. Salary £100 per annum, with board and lodging.

JERUSALEM, BRITISH OPHTHALMIC HOSPITAL.—Chief Surgeon. Salary £500.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary £100 per annum, with board and lodging.

LINCOLN CITY EDUCATION COMMITTEE.—Assistant School Medical Officer and Assistant Medical Officer of Health. Salary £250 per annum.

LIVERPOOL EYE AND EAR INFIRMARY, Myrtle-street.—Honorary Assistant Surgeon.

LONDON HOSPITAL, Whitechapel, E.—Medical Registrarship. Salary £100 per annum.

LONDON TEMPERANCE HOSPITAL.—Medical Registrar. Salary at rate of 40 guineas per annum.

MARGATE, ROYAL SEA BATHING HOSPITAL FOR SURGICAL TUBERCULOSIS.—Resident Surgeon. Salary £120 per annum, with board and residence.

NATIONAL HOSPITAL FOR THE RELIEF AND CURE OF THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C.—Honorary Anæsthetist.

NEW HOSPITAL FOR WOMEN, Euston-road.—Three Clinical Assistants (female).

NORFOLK EDUCATION COMMITTEE.—Assistant Medical Officer. Salary £250 per annum.

NORTHAMPTON GENERAL HOSPITAL.—House Surgeon, unmarried. Salary £90 per annum, with apartments, board, washing, &c.

NORTH SHIELDS, TYNEMOUTH VICTORIA JUBILEE INFIRMARY, Spring Gardens.—House Surgeon. Salary £100 per annum, with rooms, board, &c.

OCHILTREE PARISH COUNCIL, Ayrshire.—Medical Officer. Salary £25 per annum.

OLDHAM UNION WORKHOUSE.—Resident Medical Officer. Salary £130 per annum, with apartments, washing, and attendance.

ROTHERHAM HOSPITAL.—Senior House Surgeon. Salary £110 per annum, with board, lodging, and washing.

ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—Resident Junior Obstetric Physician (female).

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN.—Surgeon.

ST. JOHN'S WOOD AND PORTLAND TOWN DISPENSARY, 96, St. John's Wood-terrace, N.W.—Third Medical Officer. Salary, midwifery and vaccination fees and a third proportionate share of an honorarium of £150.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road.—Resident Medical Officer, unmarried. Salary £105 per annum, with residence and attendance.

ST. PAUL'S HOSPITAL FOR SKIN AND URINARY DISEASES, Red Lion-square, W.C.—Clinical Assistant.

SHEFFIELD ROYAL INFIRMARY.—Seventh Resident Medical Officer. Salary £60 per annum, with board and residence.

SOUTHAMPTON, FREE EYE HOSPITAL.—House Surgeon. Salary £100 per annum, with board and residence.

STOKE-ON-TRENT, NORTH STAFFS. INFIRMARY, Hartshill.—House Surgeon. Salary £100 per annum, with apartments, board, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary at rate of £100 per annum, with board, rooms, and laundry.

THE Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies as Certifying Surgeons under the Factory and Workshop Act at Kinghorn, in the county of Fife; at Crediton, in the county of Devon; and at Sheffield (Hillsborough), in the county of Yorks, West Riding.

THE Secretary of State for the Home Department gives notice of a vacancy as Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuit No. 55, more particularly to Lymington County Court.

Births, Marriages, and Deaths.

BIRTHS.

CLARE.—On Dec. 26th, 1910, at Highcross-street, Leicester, the wife of T. C. Clare, M.D., F.R.C.S., of a son.

CRAWFORD.—On Dec. 28th, 1910 at Orchard Lea, Swanley, Kent, the wife of J. Dawson Crawford, M.D., of a son.

HOWLETT.—On Dec. 24th, 1910, at Springfield-road, Kingston-on-Thames, the wife of Bernard Howlett, M.R.C.S., L.R.C.P., of a son.

LEWIS.—On Dec. 30th, 1910, at Weymouth-street, W., the wife of Ernest E. Lewis, M.D., of a daughter.

POWELL.—On Dec 25th, 1910, at East Liss, Hants, the wife of Edgar Powell, Major, R.A.M.C., of a daughter.

RUSTON-HARRISON.—At Hill Cottage, Exmouth, on Dec. 26th, 1910, the wife of G. H. Ruston-Harrison, M.B., C.M., of a daughter.

SCOTT.—At "Tregenna," Staines, on Dec. 30th, 1910, the wife of Captain Norman Scott, I.M.S., of a son.

SIMPSON.—On Dec. 31st, 1910, at Coldharbour-lane, S.E., the wife of Patrick G. Simpson, M.B., C.M., of a son.

PEARSON.—On Jan. 1st, at Manor-place, Edinburgh, the wife of Charles Mowbray Pearson, M.B., F.R.C.P.E., of a daughter.

DEATHS.

CLOETE-SMITH.—On Dec. 28th, 1910, at Westbourne-street, Hyde Park Edward Arnold Cloëte-Smith, M.R.C.S., L.R.C.P.

LIPSCOMB.—On Dec. 28th, 1910, in London, Edgar Richard Senhouse Lipscomb, L.R.C.P., M.R.C.S., aged 51 years.

SMITH.—On Nov. 29th, 1910, at Geelong, Victoria, Australia, Stephen Maberly Smith, M.R.C.S. Eng., L.R.C.P., L.M. Dub., aged 56 years.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE NOMENCLATURE OF THE SUPRARENAL PRINCIPLE.

WE note that in the "Year Book of Pharmacy" for 1910, the word "adrenine" is adopted generically for the active principle of the medulla of the suprarenal gland. This word, we believe, was adopted by the committee which published the B.P. codex but was rejected by the General Medical Council. In certain cases it seems to us the adoption of the word adrenine may misrepresent facts, for the extract is sold under various names, and the merits of each may be (and are) widely different. In the number of the "Year Book of Pharmacy" referred to there is an abstract of an article which appeared in THE LANCET of Oct. 2nd, 1909. The abstract is headed "Adrenine as an Emergency Treatment in Cases of Non-Corrosive Poisoning"; whereas, the original article in THE LANCET related exclusively to adrenalin, and the observations in the case were based entirely upon the use of "adrenalin." This seems to us to be a case where the use of a generic term which has not received complete acceptation may do a well-known active and efficient preparation an injustice.

MEDICINE HAT.

THE *Daily Express* correspondent has informed his paper from New York on Dec. 24th last that Mr. Rudyard Kipling has written a letter to the inhabitants of Medicine Hat, Canada, on being informed that the city contemplated changing its name. "So far as I can make out," he writes, "the chief arguments for the change are that some United States journalists have some sort of joke that Medicine Hat supplies all the bad weather of the United States.' Medicine Hat is in the electoral district of Assiniboia West in the Province of Alberta, Canada. The United States is not without equally curious townships; for instance, it has two Medicines, Medicine Bow, Medicine Creek, Medicine Lodge, as well as a Medicine River, a Medical Lake, and a Medical Springs.

SPARE MEDICAL JOURNALS.

To the Editor of THE LANCET.

SIR,—May I, on behalf of our doctors in the mission field, ask through your columns if the medical men and women of Great Britain who are in the habit of regularly getting medical journals, and who, after reading them, throw them aside, will kindly consider the needs of our medical missionaries in the foreign field? Any jou nals sent to Miss B. Gambier Parry, Bacton, Wokingham, Berks, will be very gratefully received and forwarded without delay to a missionary doctor.

I am, Sir, yours faithfully,

J. ANDERSON ROBERTSON,

Secretary, Medical Missions Department, S.P.G.

Westminster, Jan. 3rd, 1911.

ROUND SHOULDERS.

ROUND shoulders are sometimes ascribed in boys to the common method of suspending the garments by braces. Although girls wear no braces, it is suggested that frequently their variously arranged waist-belts have the same evil drag on the shoulder tips as braces. In each case the trousers, drawers, or skirts are held up by buttons, the weight being imposed on the shoulders in the boy directly through his braces, and in the girl through the fact that her skirts are fastened to an under garment in itself dependent from her shoulders. In girls there is often added to the weight of their skirts an arrangement of elastic straps known as "stocking suspenders." These properly used are an admirable invention, but the result may be that the pull of these suspenders, added practically to all the weight of the child's clothing, is made to fall on the shoulder tips, and the shoulders being moveable may be influenced to a material and serious degree by a downward drag, the condition known as round shoulders being finally produced. We have had submitted for our inspection specimens of a new bodice-belt made by Mrs. Morison, of 26, South Molton-street, London, which render the use of braces in boys unnecessary and provide free play for the shoulders and chest of children of either sex. The bodice-belt is so constructed that whilst supporting the spine and lower abdomen it does not cause any strain on the chest and avoids any forward drag on the shoulder. Through its use the weight of the child's clothing is equally divided between the back of the shoulders, the spine, and the hips. The belt for the use of boys renders braces unnecessary, and is worn over the shirt, the chest and shoulders being left free by fastening the trousers through button-hole slips arranged in the garment for that purpose.

A. B. S. (*L.M.S.S.A.*).—Our correspondent's proposal that a serum prepared from cases of cancer that have undergone spontaneous cure might be valuable in the treatment of malignant disease has such obvious difficulties in the way of adoption that it must be only in rare instances and in exceptional circumstances that such a remedy could become available.

E. T. (*L.R.C.P. Ed.*).—Any case of cerebral hæmorrhage with slowly-spreading paralysis is interesting clinically, but a record in the absence of a post-mortem examination and without a description of the locality and extent of bleeding is too fragmentary for publication.

D. M.—Studies in Heterogenesis, 1904; Nature and Origin of Living Matter, 1905; Evolution of Life, 1907; all by Dr. H. Charlton Bastian.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

A DIARY OF CONGRESSES.

THE following Congresses, Conferences, and Exhibitions are announced for 1911:—

Feb. 20th–25th (Cairo).—Fifth International Congress for the Blind.
March 2nd–6th (Berlin).—Thirty-second Balneological Congress.
" 23rd (Paris).—First Congress of French Medical Journalists.
April (Berlin).—German Surgical Congress. (Thirty-ninth Annual Meeting.)
April 4th–7th (London).—Fourth Annual Nursing and Midwifery Conference and Exhibition.
" 18th–20th (Paris).—Third Congress of Physiotherapy of French-speaking Physicians.
" 19th–22nd (Wiesbaden).—Twenty-eighth German Congress of Internal Medicine.
" 20th–22nd (Groningen).—Thirteenth Nature and Medical Congress.
May 30th (The Hague).—International Congress on Opium.
May–October Dresden).—International Hygiene Exhibition.
May–October (London, Crystal Palace).—Festival of Empire Imperial Exhibition. (Profits to King Edward VII. Hospital Fund.)
May–October (?) (London, Shepherd's Bush).—Coronation Exhibition.
June (Paris).—First Congress of the International Medical Association for the Prevention of War.
" (Los Angeles, Cal.).—American Medical Association.
June 5th–8th (Kolberg, Prussia).—Fifth International Congress of Thalassotherapy.
June and July (Romford).—Town Planning and Modern House and Cottage Exhibition.
July (Birmingham).—British Medical Association.
July 24th–29th (Belfast).—Congress of the Royal Sanitary Institute.
August 15th–21st (Dublin).—Royal Institute of Public Health.
August or September (Berlin).—Third International Laryngo-Rhinological Congress.
September (Brussels).—Exhibition of Fractures.
" (Turin).—International Congress of Pathology.
" (Genoa).—International Exhibition of Marine Hygiene.
Sept. 11th–15th (Berlin).—National Congress for the Study and Prevention of Infantile Mortality (*Gouttes de Lait*).
" 11th–16th (The Hague).—Thirteenth International Congress on Alcoholism.
" 18th–23rd (Sydney).—Australasian Medical Congress.
" 18th–24th (Turin).—Fourth National Congress of Hygiene.
" 24th–30th (Rome).—International Congress on Tuberculosis.
" 25th–29th (Rome) Seventh International Congress of Dermatology and Syphilology.
October (Cologne).—International Congress of Criminal Anthropology.
Oct. 1st–4th (Liége).—Second Congress of Alimentation.
Dec. 4th–9th (Havana, Cuba).—American Public Health Association.
(Date not fixed) (Montreal).—Canadian Medical Association.
(Date not fixed) (Rome).—International Exhibition of Social Hygiene.
(Date uncertain) (Turin).—International Exhibition of Industry and Labour.

In 1912:—
Spring (London).—Second Optical Convention.
July (?) (Cologne).—International Congress of Nurses.
September (Prague).—International Congress of Radiology and Medical Electrology.
September (Berlin).—Sixth International Congress of Obstetrics and Gynæcology.
" Visit of German Medical Men to America.
Nov. 22nd–29th (Washington, D.C.).—Fifteenth International Congress of Hygiene and Demography.

In 1913:—
(London).—Seventeenth International Congress of Medicine.
(Dresden (?)).—International Conference on Cancer.
(Washington).—Congress of American Physicians and Surgeons.
August (Buffalo).—Fourth International Congress of School Hygiene.

In 1914:—
(Vienna).—Third International Congress for Professional Diseases.

In 1915:—
(London).—International Prison Congress.
(London).—Imperial Exhibition (?)

THE following journals and magazines have been received:—*Contemporary Review, Cornhill, Burlington Magazine, M.A.B. (Mainly About Books) Christmas Number, The Child, Paris Médical, Critic and Guide, Monthly Bulletin of the Illinois State Board of Health, Medical Missions, The North American Review, School Hygiene, The Quarterly Journal of Medicine, The Century Magazine, The Military Surgeon (Washington, D.C.), &c.*

Medical Diary for the ensuing Week.

SOCIETIES.

ROYAL SOCIETY OF MEDICINE, 15, Cavendish-square, W. (temporary address during building of new house).

TUESDAY.

SURGICAL SECTION (Hon. Secretaries—Jonathan Hutchinson, L. A. Dunn): at 5.30 P.M.

Debate:

On the Operative Treatment of Cancer of the Rectum. The following gentlemen will take part:—Mr. F. Wood Jones, Mr. F. Swinford Edwards, Mr. W. Harrison Cripps, Sir Frederick S. Eve, F.R.C.S., and Mr. H. F. Waterhouse.

The DEBATE will be continued on Wednesday, Jan. 18th, when the following gentlemen will take part:—Mr. A. Boyce Barrow, Mr. F. C. Wallis, Mr. P. Furnivall, and Mr. Lockhart Mummery. Any other gentleman wishing to take part is requested to communicate with Mr. J. Hutchinson, 1, Park-crescent, W.

FRIDAY.

CLINICAL SECTION (Hon. Secretaries: Albert Carless, James Galloway): at 8 P.M.

Cases:

Dr. J. D. Rolleston and Dr. N. S. MacNaughton: Familial Pigmentary Dermo-fibromatosis.

Dr. James Galloway: Congenital Heart Disease; Pulmonary Stenosis. And other cases.

Communication:

Dr. F. Parkes Weber and Dr. G. Dorner: A Case of Congenital Pulmonary Stenosis, with Special Consideration of the Nature of the Secondary and Blood Changes.

MEDICAL SOCIETY OF LONDON, 11, Chandos-street, Cavendish-square, W.

MONDAY.—8.30 P.M., Dr. J. Taylor: Some Ocular and Visual Conditions in Medical Cases.—Mr. P. Fleming: Some Cases of Medical Interest met with in Ophthalmic Work.

SOCIETY FOR THE STUDY OF INEBRIETY, Rooms of the Medical Society of London, 11, Chandos-street, Cavendish-square, W.

TUESDAY.—4 P.M., Dr. T. B. Hyslop: The Influence of Parental Alcoholism on the Physique and Ability of Offspring (followed by a Discussion).

HUNTERIAN SOCIETY, London Institution, Finsbury-circus, E.C.

WEDNESDAY.—8.30 P.M., Mr. D'Arcy Power: Loose Cartilages and the Results of their Surgical Treatment.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies-street, W.C.

MONDAY.—College opens.

TUESDAY.—4 P.M., Dr. H. Campbell: Clinique (Medical). 5.15 P.M., Lecture:—Dr. C. O. Hawthorne: Instrumental Methods in the Estimation of the Arterial Blood Pressure.

WEDNESDAY.—4 P.M., Mr. R. P. Rowlands: Clinique (Surgical). 5.15 P.M., Lecture:—Dr. R. W. Allen: Vaccine Treatment in Pulmonary Phthisis.

THURSDAY.—4 P.M., Mr. H. Pritchard: Clinique (Medical). 5.15 P.M., Lecture:—Dr. S. E. Dore: The Present Position of the X Ray Treatment of Ringworm of the Scalp.

FRIDAY.—4 P.M., Mr. L. Paton: Clinique (Eye).

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.

MONDAY.—10 A.M., Surgical Registrar: Demonstration of Cases in Wards. 12 noon: Pathological Demonstration:—Dr. Bernstein. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Mr. Etherington-Smith: Clinical (Lecture I.).

TUESDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 11.30 A.M.: Mr. Etherington-Smith: Demonstration of Minor Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. 2.30 P.M., Dr. Abraham: Diseases of the Skin. 5 P.M., Lecture:—Dr. Low: Plague.

WEDNESDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Mr. B. Harman: Diseases of the Eye. 2.30 P.M., Dr. Simson: Diseases of Women. 5 P.M., Lecture:—Dr. Morton: Carbon Dioxide.

THURSDAY.—10 A.M., Surgical Registrar: Demonstration of Cases in Wards. 12 noon, Lecture: Dr. G. Stewart: Practical Medicine. 2 P.M., Medical and Surgical Clinics. X Rays Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Mr. Baldwin: Practical Surgery (Lecture I.).

FRIDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. Medical Registrar: Demonstration of Cases in Wards. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. 2.30 P.M., Dr. Abraham: Diseases of the Skin. 5 P.M., Lecture:—Dr. Saunders: Clinical (with cases).

SATURDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. B. Harman: Diseases of the Eye. 2 P.M., Medical and Surgical Clinics. X Rays. Operations.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.

MONDAY.—2 P.M., Operations. 2.15 P.M., Mr. Turner: Surgery 3.15 P.M., Sir Dyce Duckworth: Medicine. 4 P.M., Mr. R Lake: Ear and Throat. Out-patient Demonstrations:—10 A.M. Surgical and Medical. 12 noon, Ear and Throat. 3.15 P.M.: Special Lecture: Sir Dyce Duckworth: The Significance of Albuminuria.

TUESDAY.—2 P.M., Operations. 2.15 P.M., Dr. R. Wells: Medicine. 3.15 P.M., Mr. R. Carling: Surgery. 4 P.M., Sir M. Morris: Diseases of the Skin. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Skin.

WEDNESDAY.—2 P.M., Operations. 2.15 P.M., Dr. F. Taylor: Medicine. 3.30 P.M., Mr. Cargill: Ophthalmology. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 11 A.M., Eye.

THURSDAY.—2 P.M., Operations. 2.15 P.M., Dr. G. Rankin: Medicine. 3.15 P.M., Sir W. Bennett: Surgery. 4 P.M., Dr. Sale-Barker: Radiography. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Ear and Throat.

FRIDAY.—2 P.M., Operations. 2.15 P.M., Dr. R. Bradford: Medicine. 3.15 P.M., Mr. McGavin: Surgery. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Skin.

SATURDAY.—2 P.M., Operations. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 11 A.M., Eye.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C.

FRIDAY.—3.30 P.M., Clinical Lecture:—Dr. G. Holmes: Tabes Dorsalis.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.

THURSDAY.—4 P.M., Lecture:—Mr. Corner: The Functions and Diseases of the Vermiform Appendix.

ANCOATS HOSPITAL, Manchester.

THURSDAY.—4.15 P.M., Dr. W. J. S. Bythell: Radiography of Diseases and Injuries of Bones and Joints.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (9th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M.), St. Mark's (2.30 P.M.), Central London Throat and Ear (Minor 9 A.M., Major 2 P.M.).

TUESDAY (10th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M., Ophthalmic, 2 P.M.), Tottenham (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.), Royal National Orthopædic (9.30 A.M. and 4 P.M.).

WEDNESDAY (11th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.20 P.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M., Dental, 2 P.M.), Tottenham (Ophthalmic, 2.30 P.M.), West London (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

THURSDAY (12th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal National Orthopædic (9 A.M. and 3.30 P.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M.), Tottenham (Gynæcological, 2.30 P.M.), West London (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

FRIDAY (13th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Royal National Orthopædic (3.30 P.M.), Soho-square (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), Tottenham (2.30 P.M.), St. Peter's (2 P.M.), Central London Throat and Ear (Minor. 9 A.M., Major, 2 P.M.).

SATURDAY (14th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 A.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M.), West London (2.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic (2 P.M.) Hospitals operations are performed daily.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITOR," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention should be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

The Index and Title-page to Vol. II. of 1910 were given in THE LANCET of Dec. 31st, 1910.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1910 will be ready shortly. Bound in cloth, gilt lettered, price 16*s.*, carriage extra.

Cases for binding the half-year's numbers are now ready Cloth, gilt lettered, price 2*s.*, by post 2*s.* 3*d.*

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 4th, 1911.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain fall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
Dec. 29	30·19	S.W.	0·03	55	48	33	42	42	Overcast
,, 30	30·27	W.	...	50	46	39	39	40	Fine
,, 31	30·47	W.	...	44	43	35	37	37	Foggy
Jan. 1	30·14	W.	...	51	47	37	38	39	Cloudy
,, 2	29·96	N.W.	0·05	49	40	34	33	36	Cloudy
,, 3	29·98	N.E.	0·25	50	41	34	37	37	Snowing
,, 4	30·13	N.E.	0·05	46	42	36	38	39	Overcast

Communications, Letters, &c., have been received from—

A.—Mr. T. K. Abbott, Dublin; Association of Fellows of the Royal College of Surgeons in Ireland, Dublin, Hon Secretaries of; A Walworth Resident; Admiralty, Medical Department of, Director-General of; Mr. J. Astier, Asnières; Dr. F. J. Allen, Witbank; Dr. P. Anikin, Ekaterinoslav; Ardath Tobacco Co., Lond.

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